

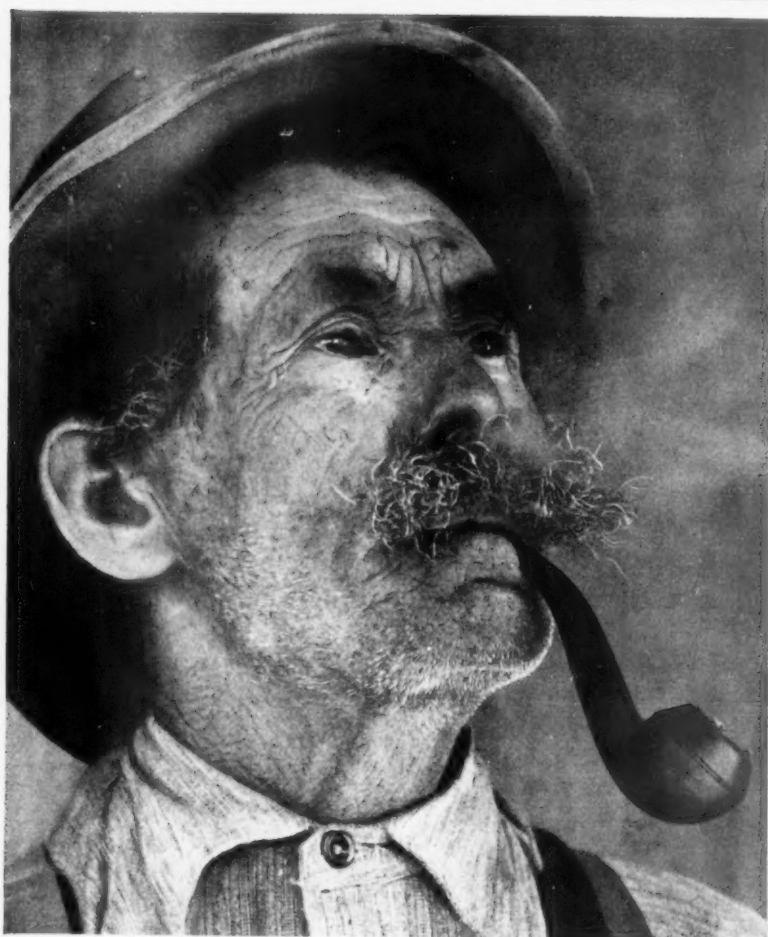
THE AUSTRALASIAN PHOTO-REVIEW

PUBLISHED BY

KODAK (AUSTRALASIA) PTY. LTD.

YEAR NINETEEN FIFTY-TWO

# APR

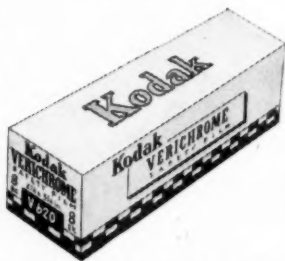


OLD-TIMER

F. L. ELRLINGTON



*The great pictures are made on*  
**KODAK**



**FILM**

MADE IN AUSTRALIA TO SUIT AUSTRALIAN CONDITIONS

## Bringing wider scope to Kodak Retina cameras

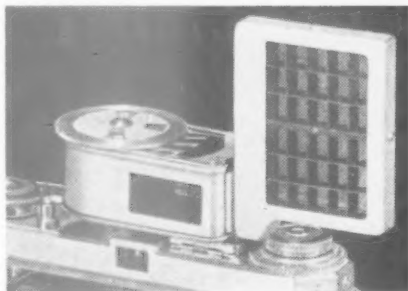
Lucky owners! . . . for this is their opportunity to make an excellent camera even better. A clip-on photo-electric exposure meter for accurate exposures . . . auxiliary lenses for better close-ups . . . screw-in filters for sparkling emphasis and drama in snapshots . . . a special lens hood for better against-the-light pictures . . . and a flash connecting lead for around-the-clock shooting. In fact, everything to extend the picture-making possibilities of your Retina camera.

### *Metraphot Exposure Meter*

(Special Retina Model)

Compact and reliable—so handy when clipped on to top of Retina camera and need not be removed during use. Has three ranges—normal, low readings and indoor (with amplifying element attached). Regulated on A.S.A. and Din ratings for readings from 1/500 sec. to 100 secs. Satin chrome finish, leather case.

Price £11/10/-



### *Amplifying Element for Metraphot Meter*

A special aid for use in conjunction with this meter to permit extra sensitive readings in very dull or artificial light conditions. Clips on to meter as shown in illustration. Supplied with special leather case. Price £3 9 6

### *Auxiliary Lenses*

Invaluable for extending the focusing range of Retina cameras. In three types: NI, NII, and NIII. With NI the focusing range is from 35½" to 19½"; with NII, 17½" to 12½"; and with NIII, 11" to 8½". Each lens is set in a screw-in chrome mount and is supplied in a moulded plastic case. For Retinette and Retina cameras I and Ia (f/2.8 lens), II and IIa (f/2 lens). Price £2 4/5

### *Filters*

In a selected range of 5 colours—yellow, green, orange, red, blue—to put added control and individuality at the fingertips of the Retina owner. Each is set in a polished chrome screw-in mount for security and convenience; supplied in a moulded plastic case.

For Retina I and Ia with f/3.5 lens: Yellow, £1 6/7 each

Other colours, £1 12/9 each

For Retina I and Ia (f/2.8 lens) II, IIa and Retinette: Yellow, £1/12 9 each

Other colours, £1 16/6 each

Filter Kit for Retinette (comprising lens hood, adapter ring and yellow filter), £1/17/-

### *Lens Hoods*

All-important to the Retina owner for shots when working against the light—both in colour and black-and-white. Each is attractively finished in black plastic with a chrome slip-on mount, milled inside to minimise reflections.

For Retina I and Ia with f/3.5 lens, 13/2 each

For Retina I and Ia (f/2.8 lens), II, IIa and Retinette, 17/9 each

### *Flash Gun Connecting Cord*

Puts your Retina camera on 24-hour duty—with synchronised flash, day or night. Synchronises camera shutter with flash gun through metal plugs at either end of cord.

For Retinette and all Retina cameras, 13/9 each

### *Table Tripod*

A 'must' for copying or close-up work—permits perfectly accurate focusing and framing. Complete with cross heads, frame holders and focusing frames (1-2, 1-3, 1-4.5). An extension column is also available. Prices: Tripod, £31 8/-; Column, £1/13/-

From Kodak Dealers Everywhere

Stocks subject to current shipping conditions

# ROSS BINOCULARS-

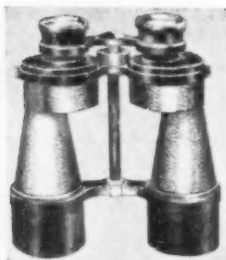
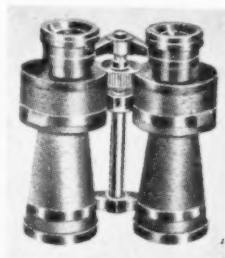
Whether your particular taste or purpose be specialised or 'different,' there is a model of the famous Ross Binoculars to suit your every desire . . . for mountaineers, riflemen, naturalists, or holiday-makers, the Ross range of binoculars is truly comprehensive.



## FOR MOUNTAINEERS . . .

Next to good vision, the mountaineer demands minimum weight . . . hence the "Stepvue"—the latest addition to the Ross Binocular range. Its high efficiency optical system provides extreme brilliance and critical definition over the whole field of view, whilst its lightness in weight (19 ozs.) and compact construction permit it to be carried all day without fatigue.

**Stepvue, 8x 30, Centre Screw Focusing**



## FOR FISHERMEN . . .

Crystal-clear vision—the lifeblood of fishing and whaling fleets—is so characteristic of the "Steplux" that it must be used particularly out-of-doors at night to be appreciated. This all-important factor is due, without doubt, to the incredible light-gathering power of its "coated" lenses and prisms.

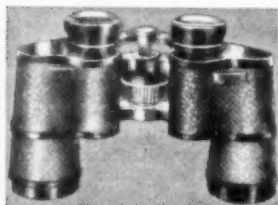
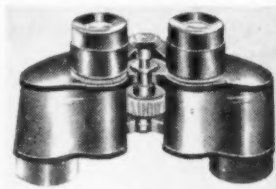
**Steplux, 7x 50, Centre Screw Focusing**



## FOR HOLIDAYS . . .

Popularly known as the "all purpose" model in the Ross Binocular range, the "Steptron" is ideally suited to the demands of the holiday-maker . . . easy to carry, light in weight, sturdy construction and of convenient range and power. Its attractive shape allows it to fit snugly into masculine hands, whilst it may easily be pocketed or put into the handbag if so desired.

**Steptron, 8x 30, Centre Screw Focusing**



## SPORTING EVENTS

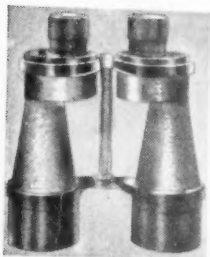
As regular racegoers and sporting enthusiasts are seldom deterred by dull weather, it is essential that their binoculars be 100% efficient under similar conditions . . . hence the popularity of the slightly extra power and larger object glasses of the "Stepruva"—a binocular which ensures quick and easy recognition of colours and competitors at considerable distances without any suggestion of strain.

**Stepruva, 9x 35, Centre Screw Focusing**





# there's a model for every purpose



## FOR NATURALISTS...

As a suggestion for the naturalist and others interested in observing wild life, the famous "Stepmur" 10x 50 binocular is particularly suitable. This model is designed to give high magnification at long range, adequate field of vision, and abundant light transmission.

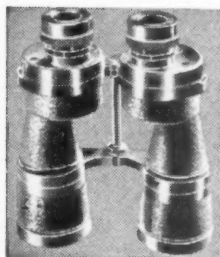
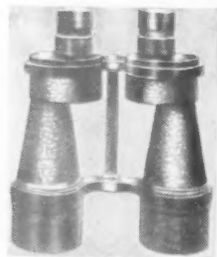
Stepmur, 10x 50, Centre Screw Focusing



## FOR BIG-GAME HUNTERS

Small objects at long distances—such as the difficulties encountered by the big game hunter or the rifleman—demand exceedingly high magnification and good light transmission in a binocular. These qualities, together with many others, are incorporated within the widely-used "Stepsun" binocular.

Stepsun, 12x 50, Centre Screw Focusing



## AT SEA...

A 'must' for use at sea or in the tropics is the famous "Tropical Ten" 10x 50 binocular. It is specially made to withstand climatic extremes, and is thoroughly resistant to heat, damp, vapour, and termites. The body is protected against corrosion, and the glasses are sealed and bonded so that they remain unimpaired even after immersion in water. Proofed against severe shock. Fitted with coated lenses and prisms.

Tropical Ten, 10x 50, Eye-piece Focusing



Prices on request

Stocked by all leading  
OPTICAL RETAILERS

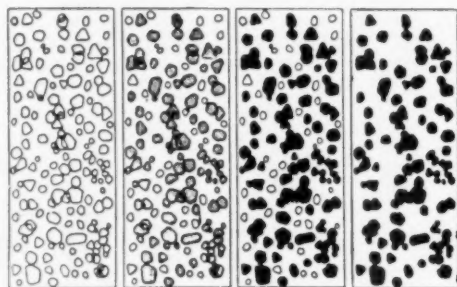


## ACTION *of the* FIXING BATH

AT THE COMPLETION of development, in addition to the developed image consisting of finely divided grains of silver, the emulsion contains all of the unexposed and undeveloped grains of silver bromide. These are still somewhat sensitive to light, and if light (other than safelight) were allowed to act on a film at this stage these grains would also turn black and cover up the image. Therefore, in order to make the image permanent, it is necessary to "fix" the film by removing all of the undeveloped silver bromide grains.

### Fixation is Accomplished

. . . by treating the film in a solution containing a fixing agent which is capable of dissolving the silver bromide but which will have no effect on the developed silver image. The fixing agent in universal use to-day is sodium thiosulphate or "hypo." Hypo forms a soluble compound with silver bromide, but has practically no effect on the silver image. Thus, when an exposed and developed negative is placed in a fixing bath, the milky portions gradually "clear." The silver bromide grains dissolve, and all that remains is the developed silver image. See diagram below.



1 2 3 4  
(1) Latent Image. (2) Partially Developed. (3) Normally Developed. (4) Fixed Out.

### Acid Required to Stop Development

Although a plain solution of hypo dissolves the undeveloped crystals of silver bromide, it would not be entirely satisfactory for practical use.

When a film is transferred from the developer to the fixing bath, it carries with it a considerable quantity of the developer solution. In a plain solution of hypo this developer would keep on acting until it was all washed out of the emulsion by the fixing bath. During this time it would be very likely to reduce some of the silver bromide which had been dissolved by the hypo and thus cause fog in the film. Also, the developing agents, which would no longer have sufficient sulphite to protect them, would undergo aerial oxidation into coloured compounds which would stain the film. Therefore, it is desirable to add a weak acid to the hypo solution in order to stop the action of the developing agents immediately, thus preventing uneven development and avoiding the danger of fog. The weak acid normally employed is diluted acetic acid.

#### **Necessity for Sodium Sulphite**

Unfortunately, when a plain solution of hypo is acidified, it rapidly decomposes and liberates very finely divided sulphur. Therefore, it is necessary to add sodium sulphite which protects the hypo from decomposition by the acid. The sulphite also prevents the formation of coloured developer oxidation products, and thus further protects the film from stains.

Thus, the simplest practical fixing bath would contain hypo, sulphite and acetic acid.

#### **Alum as a Hardening Agent**

It is often desirable to harden the gelatin of the emulsion in order to prevent excessive swelling or softening in the wash water, particularly under summer conditions. It is most convenient to add a hardening agent to the fixing bath, so that the hardening and fixing occur simultaneously. The hardening agent most commonly used is potassium alum, which is added to the bath containing hypo, acetic acid and sodium sulphite.

#### **Boric Acid to Increase the Useful Life**

As the fixing bath is used, there is an accumulation of the developer chemicals carried in by the film. Thus, the acid in the fixing bath is gradually neutralised by the alkali of the developer. The range of acidity in which baths containing hypo, sulphite, acid, and hardener can function satisfactorily is rather limited. If the active acidity is too great the bath does not harden and the hypo may decompose; while if the acid is neutralised too far, a sludge of aluminium sulphite is formed which renders the bath useless. (This sludge formation is somewhat delayed

when Kodak is used in the developer.) However, if boric acid is added to a fixing bath of this type, the quantity of developer that can be added before this sludging occurs is very considerably increased, and thus the hardening life of the bath is lengthened.

### **Mixing the Fixing Solution**

When an acid hardening fixing bath is being made up it is essential that the ingredients be dissolved in the proper order if decomposition of the hypo and precipitation of the alum are to be avoided. The hypo should be dissolved first, then the sulphite, then the acid, and finally the alum. If the hardener is made up separately to be added to a hypo solution, the sulphite should be dissolved first, then the acid, and finally the alum. The preparation of baths containing chrome alum as the hardening agent is even more critical, and the directions should be followed very carefully, particularly in regard to stirring and the temperature of the solutions.

### **Time of Fixation**

In use, the fixing bath should not only dissolve the silver bromide grains, it should also remove these dissolved silver salts from the emulsion. Therefore, after the last visible trace of silver bromide has disappeared, after the milky portions of the emulsion have cleared, the fixing bath should be allowed several more minutes in which the silver salts diffuse out of the emulsion. A good rule is to let the bath act for twice the time it takes to clear the emulsion. The bath must fix the whole emulsion, which it cannot do if several films or prints are piled together, one on top of the other. Therefore, they should be kept separated and the bath should be agitated from time to time.

Naturally, as the bath is used, the silver compounds accumulate in the solution and the bath becomes slower in action and has more and more difficulty in removing the last trace of silver salt from the emulsion. If the bath is kept in use too long, past the point when it takes twice as long to fix as it did when fresh, it loses its ability to remove all of the unused silver salts. These will remain in the emulsion even after washing and will gradually decompose with age, forming brown silver sulphide which will stain the negative or print, and forming other compounds which may attack the silver image.

### **Separate Baths for Films and Papers**

Photographic papers are much more sensitive to this staining and fading than the negative emulsions on film and plates. Also during fixation,

certain compounds are removed from the negative film—these may be absorbed by the paper print and increase the tendency to stain or fade. Therefore, it is best never to fix prints in a bath that has been used for fixing negatives.

Of course, this rule is not absolute, and in many cases it might be possible to obtain satisfactory fixation of prints in a bath that has been used for negatives. However, whenever the permanence of the prints is a matter of importance, it is best to observe this precaution and use a separate bath for prints.

### **Two-Bath Method of Fixation**

In order to ensure against incomplete fixation from use of an over-worked bath it is a good plan to use two baths, treating the sensitive material in the first until the emulsion has cleared, then transferring it to a second bath for an equal time. Thus, the first bath does most of the work, leaving the second bath free to remove the last traces of the silver compounds. When the first bath becomes exhausted, it is discarded, and the second bath is then used as the first bath with a fresh second bath.

This two-bath system is particularly desirable for use with prints.

### **Acid Rinse Baths**

An acid rinse or stop bath is often used between development and fixation. The primary purpose is to check development instantly by neutralising the developer carried over, but in so doing it also protects the acidity of the fixing bath from exhaustion. The use of an acid rinse bath is more desirable with paper prints, which often tend to stain when transferred directly from developer to fixing bath without thorough agitation in the fixing bath. There are several formulae for rinse baths. Some are merely dilute solutions of acetic acid, while others have a hardener added to prevent swelling of the gelatin.

### **Prepared Fixing Bath**

In order to simplify the procedure of mixing a fixing bath, prepared chemicals are available. Such could be Kodak Acid Fixing Powder with Hardener and Kodak Liquid Hardener, the latter being added to the plain hypo solution.

*Issued by* LECTURE SERVICE DIVISION  
KODAK (A/ASIA) PTY. LTD.



# The Photographic Societies

*Club reports should normally be written to cover club events of the last twenty days of the previous month and those of the first ten days of the current month. They should always be written up immediately and posted so as to reach "The A.P.-R." not later than the 13th of the month before publication.*

## CAMERA CLUB OF SYDNEY

### (Incorporating The Miniature Camera Group)

Tuesday, 26th February, saw the occasion of a slide-illustrated lecture on Photography in Astronomy by W. Gale, A.R.P.S. The lecturer's pleasant insight into the immensity of the universe left the audience pondering on man's insignificance. The problem of photographing moving bodies, such as stars, entirely dependent on their own extremely weak luminosity that necessitates exposures anything up to six hours, provided further food for thought.

The evening of 11th March, for which an Open competition was scheduled, attracted a good display of prints, particularly in B Grade. Awards were as follows:

A Grade—1, K. D. Hastings; 2, J. M. Galbraith; 3, C. V. Jackson and M. J. Wright (equal).

B Grade—1, D. McWhirter; 2, B. Stavely; 3, L. Friend; HC, B. L. Gibbons.

Mr. Henri Mallard, who was the guest speaker for the evening, kindly consented to act in the capacity of judge for the above competition, and afterwards spoke on Print Judging as well as giving a complete criticism of all entries.

Points from Mr. Mallard's lecture were: Firstly, to consider technical excellence; secondly, a print should carry well; and thirdly, composition should play a large part in exhibition prints. He further defined Primordiality as that which makes a print attractive, giving it a dominant note. Mood, he said, was an added attraction which, for the artist, was extremely difficult to convey and which was often over-exaggerated by him. The photographer is better able to portray mood. Trimming, essentially consisting of selection and rejection of all extraneous matter, was important when composing a print, in that any superfluous object should not be allowed to compete with the principal subject matter. Of import also, is Presentation, and without it there is little or no chance of success with an exhibition photograph.

Mr. Mallard spoke briefly on Constructive Criticism versus Destructive Criticism. A vote of thanks was carried by hearty acclamation. M.G.W.

## THE MANLY CAMERA CLUB

February 21st was our "Colour Night." To begin with, colour movies were shown, and then followed a presentation of 24 x 36mm. Kodachrome slides made by several members. Commentaries were given by the contributors, whilst various slides were discussed amongst the audience. An interesting point to note is the development of this side of the club's activities. The club is indebted to Messrs. Were, Faulks, and McIlveen for the loan of their respective projectors, and to Mr. A. S. Hart for his screen.

On March 6th the Set Competition was "Man or Men at Work." Members were pleased once again to welcome Mr. Symonds, of the Photographic

Society of N.S.W., who acted as judge. The results were: "A" Grade—1, J. J. Waterer (8 pts.); 2, F. B. Solomon (5 pts.). "B" Grade—1, E. B. Coker (8 pts.); 2, A. Patterson (7 pts.); 3, E. Were (6 pts.).

The club was also fortunate on this evening of having a notable visitor, Mr. J. P. Carney, of Griffith. Mr. Carney gave an impromptu talk to members, relating the experiences of his early days in photography, how he came to exhibit his pictures, firstly in A.P.-R., then in Australian exhibitions, and lastly in many overseas salons. Members were fascinated by the frankness of Mr. Carney's talk and of the discussion of many of his exhibits in the A.P.-R. As a word of advice, he gave this moral: "Hard work by the individual and the application of advice given."

Our club feels indeed grateful to both Mr. Symonds and Mr. Carney for this most enjoyable and instructive evening. F.B.S.

## CAMPSIE CAMERA CLUB

The 22nd February, 1952, saw the monthly meeting of the Campsie Camera Club off to a good start with a very good attendance of both members and visitors. It was the first meeting since officers were elected for the forthcoming year, and many advancements are expected during 1952.

The meeting set down for April 18th, 1952, is expected to bring along quite an attendance, when Mr. K. Douglas will give a Print Quality demonstration. The competition for that night will be "Still Life and Table-Top." The February meeting consisted of a competition "Open" and a Hand-Coloured Print Exhibition—both were very well subscribed to and some beautiful hand-coloured work was evident, both in oils and photographic pencils.

The A Grade competition results were: 1, R. Kelly; 2 and 3, K. Douglas; HC, C. Hannaford. B Grade—1, R. Freer; 2, J. Barnes; 3, J. Bremner; HC, J. Bremner.

The Point-Score tables are: A Grade—K. Douglas, 51; B. Davis, 15; R. Kelly, 13. B Grade—R. Greene, 15; J. Bremner, 14; R. Freer, 14.

Naturally, a very close finish is expected in B Grade, as only four more contests remain for this season. The next meeting will once again be held in the Club Rooms, Dispensary Hall, Campsie. A cordial welcome is extended to all. R.C.G.

## THE PHOTOGRAPHIC SOCIETY OF PAPUA

Now in its second year, the Photographic Society of Papua is rapidly overcoming its 'growing pains' and developing into a smooth-running organisation.

With His Honour the Administrator, Colonel J. K. Murray, as Patron, the Society is rapidly flourishing in its many activities which embrace regular competitions, public exhibitions and photographic outings.

At the annual meeting held on 3rd October, 1951, the election of officers was held, with the following results: *President*, W. H. Fitness; *Secretary*, H. A. J. Haines; *Treasurer*, F. B. Lea; *Councillors*—J. Cox, T. F. Warren, T. Henry.

The 1950-51 Print Competition results were as follows: *Advanced*—T. F. Warren, 74; P. Livingston, 45; H. Haines, 29; C. Bird, 26. *Beginners*—A. Finch, 18; S. Remfry, 6.

The Council has several good schemes lined up for the future. These are the establishment of a first-class library, and the organisation of portfolios of competition prints which can be exchanged with other photographic clubs.

Any persons interested in photography and living in the Port Moresby area will be made welcome at our regular meetings. H.A.J.H.



TWO GRACIAS T. Bodor

Vol. 59

APRIL 1952

No. 4

# THE AUSTRALASIAN *Photo-Review*

Editor: KEAST BURKE, A.R.P.S., A.P.S.A., Hon. Rep. P.S.A.

## Contents of this issue

### ARTICLES :

Action of the Fixing Bath	196
The Photographic Societies	200 } 247
"... Alias Strobe"	202
Leaves from a Studio Diary	208
Muybridge's Animal Locomotion	230
Review of March Portfolio	238
Contest Review	240
Editorial Notes	246
The 'Last Page'	250

### ILLUSTRATIONS :

Australian Landscape	211
----------------------	-----

### ADVERTISEMENTS :

Kodak Film	ii
Retina Accessories	193
Ross Binoculars	194
Kodascope Eight-46	251
Flexaret Model IIb	252
Dictionary of Photography, 35mm. Neg. Album, Super-XX Film Pack	253
Used Apparatus	254
Bertram Exposure Meter	256
Kodak Bromesko	iii
Functional Photography	iv

## Good things to come . . .

*Tahiti, Paradise of the Pacific* (Jacques Villemainot)

*Looking over the A.P.P.S. 'Prints of the Year'* (Karradji)

*The Great Lindt* (Editorial Biography)

*Pointers to Projection Print Perfection and Sure-fire Flash* (M. G. Wilson)  
*Photography of Snakes and Reptiles* (John Street)

*Leaves from a Studio Diary* (J. C. Young)

*How to . . .* (Johnny Appleseed)

*What Development Does* (Technical Service)

*'Hands' and 'Silhouettes'* (Portfolios)

## KODAK (Australasia) PTY. LTD.

(Incorporated in Victoria)

379 & 386 GEORGE ST., SYDNEY. 250-252 QUEEN ST., BRISBANE.  
 252 COLLINS STREET and 308a FLINDERS LANE, MELBOURNE.  
 37 RUNDLE ST., ADELAIDE. And Perth, Hobart, Launceston, Toowoomba,  
 Rockhampton, Townsville, Cairns, Newcastle, Katoomba, Ballarat, Geelong.

Annual Subscription, Post Free, 12/- Single Copy, 1/-.

# "... Alias Strobe"

Like William Mortensen,\* I agree, that however erroneous it may be to call the photographic electronic flash system 'strobe,' it is still rather like calling a spade an agricultural implement to use the term 'electronic flash'; so in the spirit of calling a spade a spade and since we have a degree of common usage on our side, let it be 'strobe.'† Thought by many to be a modern innovation and certainly perfected during World War II, the first mention of utilising this electrical phenomenon for photography occurred one hundred years ago when Fox Talbot, that amazing pioneer in the photographic field, took out patents connected with the utilisation of an electric spark discharge for photography.

The electronic flash tube works on the basic principle of converting electrical energy into radiant energy, this being accomplished by charging a relatively large capacity condenser with a current in the vicinity of 2.5 kV D.C. (2,500 volts, direct current); that high voltage is derived by means of a vibrator-transformer from dry cells or a 6-volt accumulator, in the case of portable units, and by a step-up transformer from the power mains in the case of studio units.

The flash tube, consisting of a spiral or helix, and in certain cases simply a U-shaped glass tube of approximately  $\frac{1}{8}$ " diameter, is filled with Xenon, a rare and inert gas, and sealed in an outer glass envelope giving it an appearance not unlike a standard radio valve. Electrodes fitted in either end of the inner glass tube are connected across the main condenser, but usually the resistance of the gas

By MAX G. WILSON

is such that, although the flash tube is constantly at a potential of 2,500 volts, this amount of current is insufficient to cause the gas to become luminous but at a point roughly half the length of the helix a 'trigger' is placed. When a high voltage pulse is applied to this point (approximately 1,500 volts), the effect is identical with the application of 3,000 volts at either end of the spiral, since the current has only half the distance to travel and thus only half the resistance to overcome, and at this voltage the Xenon gas ionises, permitting current to pass from one electrode to the other. This conductivity causes the electric current stored in the main condenser to surge out in one terrific discharge that takes place in an infinitely small space of time and in doing so causes the gas to become luminous, emitting a brilliant flash of light of daylight quality.

The flash is of such short duration that it barely has time to register on the retina of the human eye. Most portable units available in Australia are listed as having a flash duration of one ten-thousandth of a second, although specially developed ultra-short duration types enable photographers to make pictures at an equivalent exposure of three-millionths of a second.

Strobe units are rated in joules (or, as our U.S. cousins prefer, watt-seconds—both terms being synonymous), thus if we choose a 60-joule unit, its light output will be 600,000 watts for a duration of one ten-thousandth of a second; and by simple interpolation we find that this is equivalent to 60 watts for one second, which, as you can see, is a relatively weak light. So, if the photographer is fully conversant with the limitations and characteristics of strobe, he is enabled fully to employ its advantages and minimise its disadvantages.

'Not much light' some will say, but in order to gain any significant increase in light output would mean the size and weight of the power unit would have to be increased out of all proportion, and until smaller, more efficient con-

\*"Flash in Modern Photography," by William Mortensen, published by Camera Craft, U.S.A.

†The word 'strobe' is a contraction of *stroboscope*, which is a technical device that intermittently flashes a lamp of extremely brief duration at a frequency that can be adjusted by the user; these rapid flashes are used to view moving objects or machine parts moving or turning at high speeds, and since the moving object is illuminated at precisely the same spot on each revolution, the object appears to be stationary when the frequency of the flashes coincides with the speed of the object. Should the object be moving at a speed faster or slower than the frequency of the flashes, the illusion of the object moves slowly backwards or forwards—a common example of this being the wagon wheels often seen on the motion picture screen where the wheels appear to be turning backwards because of the stroboscopic effect caused by the movie camera shutter being out of synchronisation with the speed of the wheels. The basic word *stroboscope* is derived from two Greek words meaning to turn and to view, and it was because of its scientific application that it was so named.

Fig. 1

An Australian-made Electronic Flash Outfit (60 joule) shown attached to a twin-lens reflex camera.



densers can be designed, we must accept this anomaly. Because of the intense peak brilliance many people are inclined to believe that strobe is much more powerful, not taking into consideration the extremely brief duration of the flash; but recalling the equation for exposure,  $E=I \times T$ , the multiplication of Intensity by Time and applying it in this instance will serve to make the situation clearer.

Being fully cognizant of strobe's limitations, we can make full use of the daylight quality of the light which, in the main, is pre-eminently suited for portraiture, child studies, wedding photography, action occurring within certain distances, and a variety of technical and scientific photographs. With correct development, negatives made with strobe lighting will lack the harsh contrast known as 'soot and whitewash'—a condition usually associated with over-exposure in normal flash photography.

Irrespective of their manufacture and type, electronic flash outfits employing similar flash tubes will have approximately the same light output for a given capacity condenser, so that some manufacturers' claims of performance for their units may be somewhat exaggerated in light of practical tests conducted by the user.

Some journals make no mention of development of the negative material employed with strobe and, by reason of the reader drawing the inference that 'normal' development is satisfactory, leads to under-development due to the sensitivity of the film to the quality of the light and the reciprocity failure of the inverse square law of light when applied to strobe. As a general recommendation, film should be developed from 50% to twice the normal time in a vigorous developer such as Kodak DK-60a to gain maximum emulsion speed from the negative material. For soft working developers such as Kodak D-23 or Microdol, an increase in exposure of one stop is to be recommended.

In cases where under-exposure is unavoidable, or is known to have occurred, it is possible to compensate by prolonged development up to three times normal, but is not recommended beyond this point due to the increase in fog level. It should be understood that, for the purposes of this article, 'normal' development refers to the time necessary for a film-developer combination to attain a gamma of 1.0 as shown by a time-temperature development chart.

Tests conducted by users themselves, based on varying the exposure, will result in negatives



Fig. 2

This photograph was made with a shutter setting of 1/100th sec. at f/11 on Kodak Super-XX film; a 30 joule strobe at camera (7 feet from the subject) supplied the lighting. Film was developed plus 50% in Kodak Developer D-23.



Fig. 3

The original was a 10x magnification from a strobe negative made with shutter set at 1/100th sec. at f/16 on Kodak Super-XX film; distance from camera to subject was 5 1/2 feet. Developed in Kodak Developer D-23 plus 50%, the film shows a certain amount of graininess due to over-development but not so much as to be objectionable.



Fig. 4

Made in a strong summer sunshine that cast dense shadows; the lighting ratio of highlights/shadows was effectively reduced by using fill-in flash with a 30-joule strobe. This synchro-sunlight system results in a much better balanced lighting. Exposure 1/100th sec. at f/11 on Kodak Super-XX film, K2 filter. Developed in Kodak Developer D-76 (two bath formula) to reduce further the contrast.



perhaps more suitable for their particular method of printing, but in the main the foregoing will be found quite suitable for the majority of strobe users.

Synchronisation is easily accomplished with Compur-type between-the-lens shutters but not so with focal plane shutters, as these mainly consist of a rubberised fabric blind with slits of varying widths usually commencing with an opening the full size of the negative area and decreasing in width by approximately half the previous area until the fastest speed (about 1/1000th second) is represented by a slit about one sixteenth the width of the full aperture.

Since the blind travels at a relatively slow speed, a snail's pace in comparison to the lightning-like flash of the strobe, only the full

blind opening can be employed, as the other apertures would result in only an area the same size as the blind opening being exposed, and thus the bulk of the picture area would be effectively masked much to the photographer's disappointment.

The usual method of synchronising a focal plane shutter is to have a small brass contact attached to the blind tapes on one side at a point half the length of the full opening and a similar contact at a corresponding position in the camera; thus when the shutter is released the contact on the blind tape traverses the film plane and makes electrical contact when the shutter is fully open, and the film is exposed to the flash.

With between-the-lens shutters, the fitting and operation of flash contacts present no real



Fig. 5

Candid and wedding photographs are almost the exclusive precinct of strobe photographers, and the results obtainable seem to rule out all other systems of illumination, as this example will show. Exposure 1/100th sec. at f 16; distance of 5 feet. Developed in Kodak Developer DK-60a plus 50%. This negative could have been developed for normal time, as highlights were a little blocked up—hence, print does not show quite enough detail in the whites. This is a straight print on grade two paper without dodging or printing-in.

difficulties, because the extremely brief flash can have a relatively long lag either side of the peak of the shutter opening and still be in perfect synchronisation. The most commonly used shutter speed for strobe might be 1/100th second; this represents a period of time of ten milli-seconds (a milli-second being one-thousandth of a second), while the flash duration of an average strobe unit is in the vicinity of 1/10th milli-second (1/10,000th second); thus the shutter is open 100 times longer than is necessary to record the flash, and therefore it is of no importance whether the synchronisation is late or early so long as it occurs within the period of the shutter opening.

Many writers in various technical journals recommend strobe for use with daylight type colour films and, in truth, it is an excellent illuminant, though some photographers have found the results a little 'cold' and rather too blue with Kodachrome film. Although it is not possible here to give specific recommendations for the use of colour correction filters, those interested in experimenting are advised to try the CC05-M filter to make the transparencies somewhat warmer in colour balance.

The manufacturers of the various colour films are still making tests with strobe and, as yet, have not released their findings. In the interim, readers should read the individual recommendations packed with each colour film, since the colour response varies slightly

TABLE A  
Kodak Film Speed Indices

Super Panchro Press, Sports Type	125
Super-XX Panchromatic	100
Verichrome	40
Panatomic-X	25
Kodachrome	12
Ektachrome	10

TABLE B  
Rated Output of Typical Portable Electronic Flash Units available in Australia.

Maker	Model	Tube Used	Output in joules
Palec	PE30	LSD3	30
Palec	PE60	LSD3	60
National	100A	LSD3a	30
National	115A	LSD3a	60
National	130A	LSD7	400
Flashtron S.T.C.		FC10	60
Flashtron S.T.C.		FC11	60
Dawe	1710 Miniflash	SF3	60
Dawe	1706 Liteflash	SF3	100
Dawe	1709 Liteflash	SF2	200
Courtenay	Master III	LSD3	1 x 200 or 2 x 100
Langham	100	LSD3a	100
Langham	200	LSD7	200
Langham	400	LSD4	400
Flashmaster		LSD3	20, 40 & 65
Blaupunkt	Ultrablitz 51	BL0400	200
Blaupunkt	Servoflash	BL0400	150
Blaupunkt	Ultrablitz	BL0400	150
Blaupunkt	Amateur	BL0102	65

TABLE C  
Exposure Guide Numbers

Output	A.S.A. Index									
	10	12	25	32	40	50	64	100	125	200
30	17	19	26	33	36	39	41	54	63	84
45	19	22	34	36	39	44	54	62	80	102
60	25	28	39	44	49	55	62	80	90	110
100	28	32	50	53	58	65	75	92	105	132
150	35	40	55	62	70	78	88	110	123	155
200	44	51	72	80	90	102	114	142	161	203
400	59	68	96	106	120	136	152	189	215	270

with each batch and production tests are still the best guide.

For those unfamiliar with the Guide Number System for exposing film, an explanation is in order. Having ascertained the film speed index for the particular film in use from Table A, the light output in joules for the particular unit in use will be located under Table B opposite the manufacturer's name. Armed with these two constants, refer to Table C. The first column gives the rated output of various units, while the line of figures to the right under the film indices comprises the exposure guide numbers which are employed as follows: With a 30-joule strobe used with

film of 100 A.S.A. rating, the guide number will be seen to be 54, so that with the flash at camera at a distance of 10 feet an aperture of  $f/5.4$  is necessary and at 5 feet an aperture of  $f/10.8$ ; but since these are not marked apertures, the nearest openings would be quite appropriate, these being  $f/5.6$  and  $f/11$  respectively. For any other distance, divide that distance into the guide number and the resultant figure will be the aperture; conversely a selected diaphragm opening divided into the guide number will yield the distance at which the photograph should be made. It will be noted that the film speed index quoted for each film will approximate the daylight rating in the majority of cases.

## Leaves from a Studio Diary Continued from page 210

If anyone should discover that a wipe with vaseline does not completely eliminate the scratches, he should clean the negative with a wipe of carbon tetrachloride; after it is dry dip it in glycerine, and then carefully sandwich it between the glass plates of the negative carrier. An ordinary wash in water will remove the glycerine afterwards.

By the way, on occasions when negatives are dry one may notice semi-transparent flecks on them—a problem which cannot be overcome by washing. This happened to me the other day and I subsequently found that it was due to the after-wash rinse in Kodak Photo Flo, the solution having been contained in a stainless steel tray; it appears that Photo Flo should not be made up in solution in stainless steel. However, a rinse in sodium sulphite removes the 'fur' and the negative will not be harmed.

### *Monday*

We were talking again today about copies. Betty, quite speciously, said that even if the lights were fixed in position, that a variation in exposure was necessary for different types of prints. "Surely," she mused, "if one print is of a predominantly light subject, and consequently lighter tone, then it would be incorrect to give the same exposure as for a 'normal' print. To give the same exposure would result in an over-exposed negative."

That one had me beaten for a moment. Queer how a little thing is frequently overlooked. Brief reflection made me remember

that when copying from a tone original which was lower key, I usually increased the exposure a little. However, further reflection on the subject was apt to convince me that no alteration in exposure would be necessary on any run of copies from tone originals, provided that the original is reasonably well printed, i.e., not almost white or almost black. I offered to the gathering the results of my thoughts. "If the greatest possible range of brightnesses recorded by the bromide paper is of the order of 40 to 1, then film would be capable of recording all the tones that a paper can give." Betty interjected, "Do you mean that a film latitude can span that?" "Yes, and more," I replied. "I understand that the brightness range recorded by most of our film would be in the vicinity of 125 to 1."

Steve muscled in at this stage. "Look, all this bosh about brightness or whatever you may call it, is unnecessary—why not aim at uniformity of density in the negatives by increasing or decreasing exposure and be done with it. Probably we *could* keep the exposure fixed, but I'm hanged if I can see any sense in getting a batch of varying negatives. For me, I'm quite happy as I am going along at present. If I'm copying an original in very high key, mostly whites, then back goes my exposure so that I can obtain a good-looking negative." He then went on with a forceful dissertation on the errors arising from 'too much theory.' That meeting broke up without the usual vote of thanks.

# Leaves from a Studio Diary

*Monday*

Being somewhat of an impatient nature concerning darkroom work, I have become quite a tyrant for correct negatives which will require a minimum of local control in printing. I try to obviate this by careful control of the conditions and lighting at the moment of exposure. Sometimes, however, this is not always possible, and this morning David was showing some annoyance at the difficulty he was having with one particular negative. I am naturally lazy enough to use my hands in any shading and dodging necessary, but David, always on the lookout for achieving different effects, has been developing a tremendous interest in cutting holes in cardboard to print-in areas and making shapes out of cardboard to hold back other areas during projection. His behaviour and attitude this time made me feel a little diffident and it was not long before I was standing at his side. He depressed the foot-switch and pointed at the easel. It was a fashion shot, and somehow or other it seemed to have fallen short of its original intention.

"The background is too busy," David snorted, meaning that I had spoilt the picture by having too much depth of field on a background of a pattern of branches. Whilst I digested this reproof, he added to his opprobrium by saying that he "thought you would have known better than to stop down when the the background was so obtrusive." Yes—I had made a slip and admitted as much. The fact was that his method of holding back the background pattern could never be successful because lightening its tones only attracted the eye to a greater degree, and so detract from the basic subject. "Look, get a sheet of cellophane from down in the studio," I told him, and when he came back I placed the cellophane on the easel and with a pair of scissors cut out the shape of the model. "There you are," I said, "go for your life." For the next half-hour he was happily engaged in producing results, and I must admit that I was surprised at the success of some of them. With varying degrees of crinkling in the cellophane, varying distances from the paper, and vary-

**By J. C. YOUNG**

ing strengths of print combined with manipulation of densities, we had quite a set of prints from which to choose. The essential points were that the subject remained sharp, but that interesting distortions were to be seen in the background.

*Tuesday*

A word about dry mounting—well, we don't do a great deal of mounting here as unmounted prints are actually more convenient for most commercial houses. However, when it happens that a quantity of mounted prints is required, as at present, something like a mild panic reigns. Out comes the iron, the tissue and boards and an off-the-record council of war to meet possible pitfalls. As some of these remain fresh in my mind, I am listing a few practical hints.

- (a) The iron should be just hot enough to 'sizz' when touched with a wet finger.
- (b) The Ademco dry mounting tissue should be cut to about  $\frac{1}{16}$ " smaller than the print on each edge.
- (c) When tacking the tissue to the back of the print make sure that this margin is preserved at all sides—otherwise there is a possibility that the tissue will show when the print is mounted.
- (d) When the iron is applied, do not omit to place a piece of thin, clean paper between the iron and the face of the print. A sheet of ordinary writing pad paper is ideal.
- (e) The iron should be applied with as much pressure as possible and left in contact for 15-20 seconds during which time it is gently and slowly moved or oscillated about  $\frac{1}{2}$ " each way. At the end of the 15-20 seconds, move the iron to an adjoining area of the print, and repeat the performance.
- (f) If, after lifting the iron, the print shows a tendency to curl off the mount, replace the iron. As soon as it is removed hold

the print down on the cardboard for about ten seconds, using a clean handkerchief wrapped around the hand. This will allow the tissue to cool down enough to hold the print firm.

#### Wednesday

David was browsing through a series of prints coming off the glazer. I was busy in my own corner and only paid the vaguest attention to the few muffled snorts floating from his direction. Presently I became aware that the snorts were becoming louder, and suddenly he burst out in definite challenge. "Do you call these prints," he called out in his own democratic way, "they're ghastly. I'd get into a terrible row if I produced anything like this."

Feeling that he was probably in one of his occasional high-spirited moods I merely asked which were the prints he was talking about, and, turning round, noticed he had a handful of glossy prints I had made earlier from a negative copied from a Kodachrome. I had a look as he boisterously waved a few under my nose. Surely enough, several of them were pretty bad. The only stain I have ever discovered personally is the one that is yellow in colour and may appear at any spot on a print, due to insufficient agitation in the fixer. The stain deepens and strengthens when the print is glazed. Feeling somewhat at a loss, I again contacted the Technical Service officer. "There are many types of stains coming from different causes," came the voice of authority over the telephone. "There is one caused by too strong a fixing solution; its symptoms show a tendency to redness in the half-tone areas and loss of detail in the highlights. All margins of the print remain white and unaffected. A mild bleaching action is the cause."

This fitted the case perfectly and I realised my error. Thirsting for additional knowledge I was prompted to obtain a little more while the going was good. "... Also, there are the yellowish mottled stains that are due to using paper which is too old, or due to keeping the print for too long in warm developer." I replied, "So far we've been talking about prints; does that mean, too, that negatives could lose gradation by being left too long in the fixer, or in an over-strong fixing solution?"

"Yes—there is a correct strength for the acid hypo fixer, and for best results follow the manufacturer's recommendation. There is also a correct fixing time, five minutes (with agitation) in fresh fixing solution, or, in the case of films, twice the time it takes to clear."

#### Thursday

Inevitably the discussion about copies the other day gave rise to a further set of questions being bounced back to me. I was glad of that because those questions indicated that Betty had been doing some thinking in the meantime. "What I can't understand," she said, "is exactly why I have to increase the exposure because of greater camera extension and why the increase in exposure is coupled with the square of that extension."

To those to whom this may seem gibberish I may explain briefly by giving an example. Suppose I am photographing a small object with a camera with double extension bellows. In order to secure the largest possible image on the negative the lens must be brought close to the subject and the closer it comes the further away must be the film to secure sharp focus. If the lens is of 10" focal length, and the camera is focused properly with 20" between the lens and film then correct exposure is not that as shown by the meter, but exactly four times that amount. This figure is arrived at in this way:

Square the focal length (in this case  
=100) . . . . . (1)

Square the camera extension (measured with a ruler) in this case=  
 $20 \times 20 = 400$  . . . . . (2)

Divide (1) into (2) and the answer is 4. This represents the number of times the exposure must be increased.

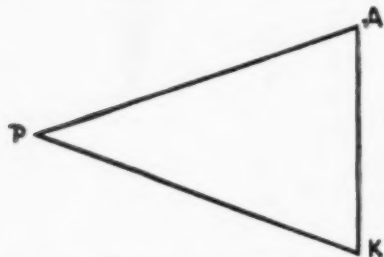
"Your question can be answered in two ways," I told Betty. "Imagine as above that the stop in the lens is 1" in diameter. As you know the 'f' number is given by

focal length  
———, and considering the diameter of aperture lens is a 10" lens, then the 'f' value is 10. That is, when the camera is working on infinity or reasonably distant objects it is working at  $f/10$ . However, when we rack the bellows out to 20" the 'f' value of the lens is 20. The

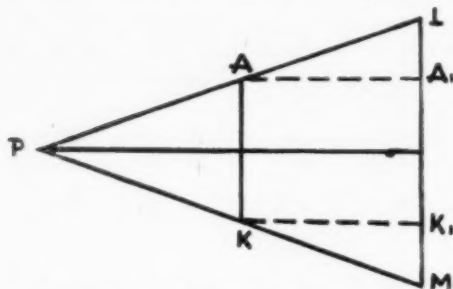


difference between  $f/10$  and  $f/20$  is two full stops, i.e., 4 times difference in exposure."

I gave time to further thought on this and said that I thought it would be wiser if she gave full consideration to that method of approach, rather than fill her mind with the second explanation. However, another way of looking at this question is by application of the law of inverse squares. If light from a point source falls on a plane surface at AK,



the intensity of light at AK may be measured by an exposure meter, and may be expressed as a certain intensity per square foot. If AK is a square foot in area that square foot is absorbing and reflecting the light radiating from P within the angle APK. However, if now AK is moved twice the distance away from P to A1K1 the light radiating from P



within the angle APK is spread over an area, one side of which is represented by LM. The side LM is twice the length of AK and therefore represents four times the area. Since  $AK = A_1K_1$  in its new position, it follows that  $A_1K_1$  receives only one-fourth the light it would receive whilst at AK.

This may be extended to any number of cases and expressed as a law:

The intensity of illumination on a plane surface from a point source of light varies inversely as the square of the distance between the point source and the plane surface.

If we regard our camera lens as the point source of light, we have now a formula to give us correct exposure adjustment for any degree of extension.

#### Friday

I arrived at the studio rather late this morning, and in response to my cheery good morning received something of a grunt from David. He had a negative envelope in one hand and an order slip in the other, and without wasting time got down to tin tacks. "There are six 16" x 20" prints to be made from this negative," he said, "and I'm hanged if I can see how you can expect a good print from a negative if someone insists on walking on it first."

That certainly took something of the sunniness out of the morning. After a moment's hesitation I withdrew the negative from its envelope and examined it by the open window. "Walking on it," was David's colloquial way of pointing out that the negative had been badly scratched; by whom and when, I did not know, but there it was. "Vaseline," I said, handing it straight back, "Has Betty started on morning tea yet?"

This little happy thought had nothing for him. His blue eyes just gazed thoughtfully at me, a tinge of hostility showing. It was a look of meditation too, as he turned things over. "I gather you suggest wiping it with vaseline," he said, "we haven't any, and if we had where do we go from there." David's momentary thought was for preservation of the negative, and secretly I thought a lot of him for that, but it was not until I had dragged him off to our morning 'cuppa' that I let go.

"Now don't worry," I said, "just remember that a wipe of vaseline will prevent that scratch from printing. When you have finished that run of prints you can wipe it off with something-or-other."

I realised that my concluding remarks were not exactly helpful—just flippant—but I couldn't remember what the solvent was. David brooded, stirring his tea until Betty, handing round the biscuits, came to light with one of her flashes of feminine intuition. "I know," she burst out suddenly, "carbon tetrachloride . . ." "Tetrachloride—that's it!" said David. "That's the stuff you recommended for cleansing before." And on he went concerning something that had happened about eight months ago.

Concluded on page 207



**0. Truchanas** *IMPREGNABLE*

---

*australian landscape*

**M. Farrawell** *THE GHOST HOUSE*





**K. Douglas** *TREE TRACERY*

**B. F. Nicholas** *MORNING*





F. Lewis *MIST IN THE HILLS*





**E. L. Malone** *SHEPHERD'S DELIGHT*

**F. L. Elrington** *EARLY MORN*





**S. G. Apelt** *TOOWOOMBA RANGE*

A. P. Beswick *AUTUMN SQUALL*





**A. E. Brown** *TUGGERAH LAKE*

**Molly Lyons** *RISING STORM*







**C. S. Christian** *WHITHER AND WHENCE*

**C. S. Christian** *BY WYNDHAM MARSH*





**C. V. Jackson** *THERE'S A WIND ON THE HEATH*

**E. R. Cornish** *AT THE TURN O' THE ROAD*





**F. P. Hion** *LAKESIDE*

**E. Rotherham** *YOU YANGS*







**H. Cleveland** *APPROACHING STORM*

**J. D. Johnstone** *HILLSIDE WHEATFIELD*



# Muybridge's Animal Locomotion

## The George E. Nitzsche Collection of Muybridge Relics

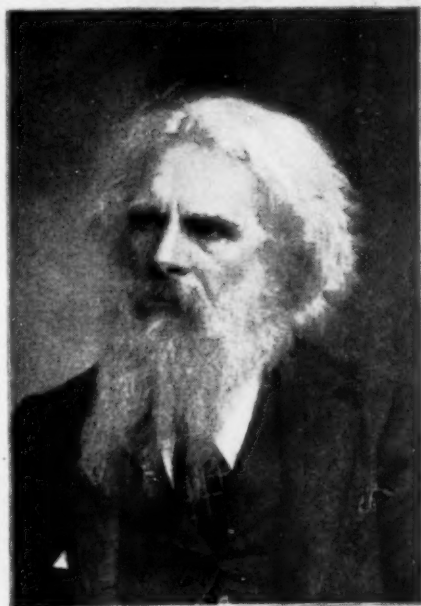
By Beaumont Newhall\*

Through the generosity of Dr. George E. Nitzsche, Recorder Emeritus of the University of Pennsylvania, Philadelphia, Pennsylvania, the Eastman Historical Photographic Collection has recently acquired a number of Muybridge's original negatives and prints, as well as notes and apparatus he used in producing his famous publication, *Animal Locomotion*. Part of this material will be on display at George Eastman House, Inc., Rochester, New York; the remainder will be available there for study. The gift not only facilitates the reconstruction of Muybridge's ingenious technique, but, for the first time in recent years, records can be seen in contact-print form of a finer quality than the original collotype plates of the *Animal Locomotion* series.

Eadweard Muybridge was a pioneer in instantaneous photography at the period of transition from hand-made collodion wet plates to manufactured gelatin dry plates and film. His work bridges still- and motion-picture photography. Although the objective of his experiments was to destroy motion by 'stopping' it, in 1880 he recreated motion by the intermittent projection of successive instantaneous photographs upon a screen.<sup>1</sup> He thus anticipated the moving picture. However, he used a separate lens for every photograph. At the University of Pennsylvania he was equipped to make forty-eight exposures of one phase of action. The point of view was changed slightly on each one because the lenses had to be placed side by side. We must not think that Muybridge's projection in 1880 was perfect. The cycle of action was brief and, due to the varying viewpoints, the effect was said to be 'not unlike what one might see from a terribly jolting railway train.' Nevertheless, despite their crudity, the projected pictures were startling in their realism. In the San Francisco

## IN TWO PARTS

*Morning Call* of May 5, 1880, it was reported that 'a pronounced flutter of enthusiasm' greeted the projection of horses in motion, and that 'nothing was wanting but the clatter of the hoofs upon the turf and an occasional breath of steam from the nostrils, to make the spectator believe that he had before him genuine flesh-and-blood steeds.' The *Daily Alta, California*, on the same day, predicted that "Mr. Muybridge has laid the foundation of a new method of entertaining the people,

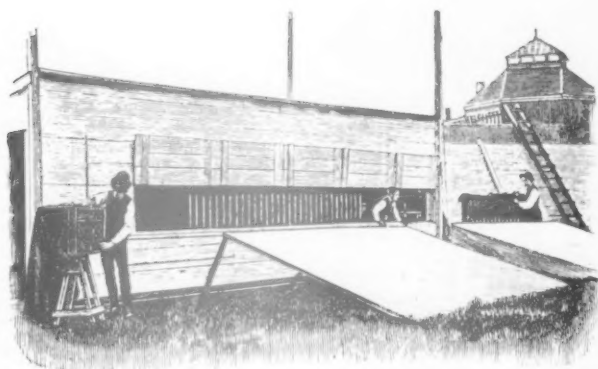


Faithfully Yours  
Eadweard  
Muybridge

\*Curator, George Eastman House, Inc., Rochester, New York.

<sup>1</sup>Henry R. Heyl, of Philadelphia, Pennsylvania, pointed the way in 1870 by projecting *posed* photographs of slightly differing phases of action upon a screen. This was synthetically produced motion, not the recreation of the passing scene.

Muybridge's outdoor studio at the University of Pennsylvania showing the battery of twenty-four cameras in the shed and the two multi-lens cameras that he used for his studies of animal and human locomotion. (From Muybridge's "Descriptive Zoopraxography.")



and we predict that his instantaneous, magic-lantern zoetrope will make the round of the civilised world."

The prediction was realised, but with more flexible and practical techniques than Muybridge's cumbersome batteries of cameras. Marey and Edison both publicly acknowledged that they based their work on Muybridge's experiments, and in the history of cinematography he must be ranked as a pioneer. He showed the path that others were to follow.

The great *Animal Locomotion* series of 781 plates was produced as an end in itself, to be used as a constant source of reference by artists, anatomists, and physiologists. His human subjects were artists' models engaged in simple acts of everyday life, athletes, or individuals suffering from pathologic disorders. For these purposes, detailed photographic records were required. Muybridge used dry plates  $3\frac{1}{2} \times 4\frac{1}{4}$  and  $3 \times 12$  inches in size. Prints from them are therefore superior in quality to enlargements from motion picture frames, which were never intended to be viewed except upon a screen and in motion.

All of Muybridge's work in Philadelphia was done in an outdoor studio with a black background, 120 feet long, divided by white strings into 5 centimetre squares. Opposite the background he had a battery of twenty-four cameras. It is believed that the camera presented by Dr. Nitzsche to the Eastman Historical Collection is one of these. It bears the number 'twenty' and accepts  $3\frac{1}{2} \times 4\frac{1}{4}$  inch plates. Its construction is simple, consisting of two telescoping sliding boxes. The lens is

missing, but Muybridge stated that he used lenses of 15-inch focal length and 3-inch diameter, which accounts for the length of the camera and the ample lens board.

The cameras were placed behind curtain roller shutters actuated by rubber bands which, when the shutter was cocked, were tense. Each was released by an electromagnetically controlled catch. These shutter releases were synchronised with a circuit breaker operated by clockwork. A chronometer was put in the electric circuit and gave an exact record of the exposure time, the interval between exposures, and the total elapsed time.



Electric circuit breaker of 'exposing motor' used to synchronise shutters with motion. (From Muybridge's "Descriptive Zoopraxography.")

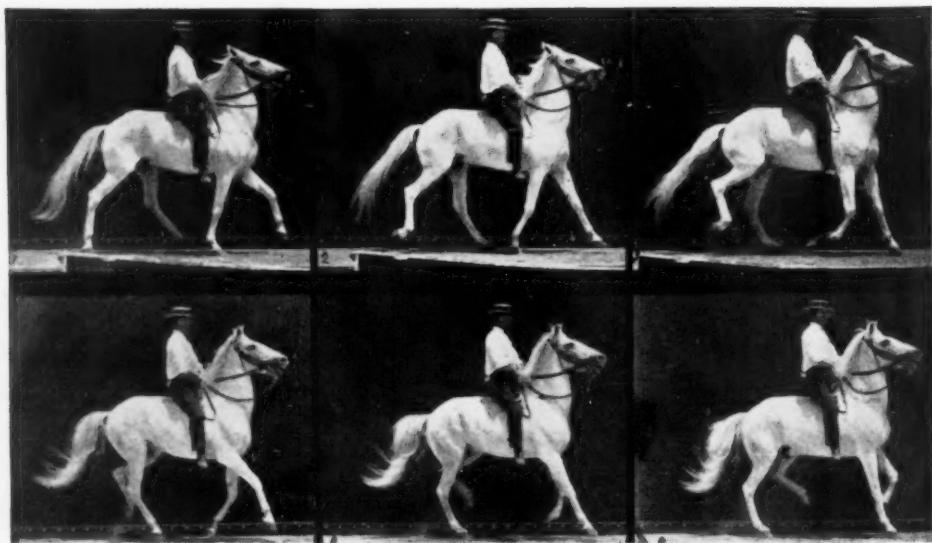
He also employed two multilens portable cameras set up at various points. These cameras were fitted with thirteen matched lenses of 5-inch focal length and  $1\frac{1}{4}$  inches in diameter. One lens formed a ground-glass image for focusing; the other twelve were taking lenses. A single plate holder accommodated three glass plates,  $3 \times 12$  inches, laid end to end. It was divided into partitions  $2\frac{7}{8} \times 2\frac{3}{4}$  inches, representing the negative area of each lens. The purpose of these portable cameras was to photograph action that remained localised within a relatively small field. A running man, for example, as he passed by the laterally placed cameras was, at the same time, photographed along the axis of travel with one portable camera standing vertically at the end of the track; he was photographed at a three-quarter angle with another portable camera.

One of the most interesting items in the Nitzsche gift is one of Muybridge's notebooks in which he recorded details of taking the

plates for *Animal Locomotion*. Record number 1415 refers to the clinical study. The notebook is an astounding record of accomplishment: in twenty-four days between September 15 and October 28, 1885, he and his assistants photographed 218 subjects with 5,837 negatives. After the negatives had been processed, glass positives were made from them. These were cut to frame the figure and assembled on plate glass with a mask of orange paper. From this assembly, master negatives on gelatin or cellulose nitrate base were printed by contact. The collotype printing plates were made from the master negative layout.

The Nitzsche Collection includes thirteen albums, containing a large number of these master negatives, many of which are still in printable condition. An album of albumen prints made from them by Muybridge is also included. These prints, richer and more detailed than the collotypes, are not only unique but are, perhaps, the best presentation of Muybridge's work in existence.

Fig. 1



## Motion\*

By H. L. Gibson†

The impression gained from a study of Muybridge's monumental work, *Animal Locomotion*, is one of admiration for the thoroughness of his procedure and for the astounding variety of his human and animal studies. Even today, his 781 large collotype plates of photographic serial records of action (Figure 1) would be a formidable publication venture. It can be well imagined that their appearance, in 1887, when printed reproductions of photographs were still uncommon, greatly stirred those in the field of educational illustration. His records formed the basis of several condensed, readily available books and also numerous zoopraxiscopic wheels (Figure 2) as well as news releases.

The general procedure adopted for making the photographs involved the use of cameras arranged in batteries beside a runway. As the subjects ran or walked between the cameras and a special background, an electric mechanism operated the shutters in sequence. In addition, a camera with 12 'taking' and one 'finding' lens was developed at the University of Pennsylvania, Philadelphia, Pennsylvania, that permitted photography from essentially one viewpoint. This device recorded motion

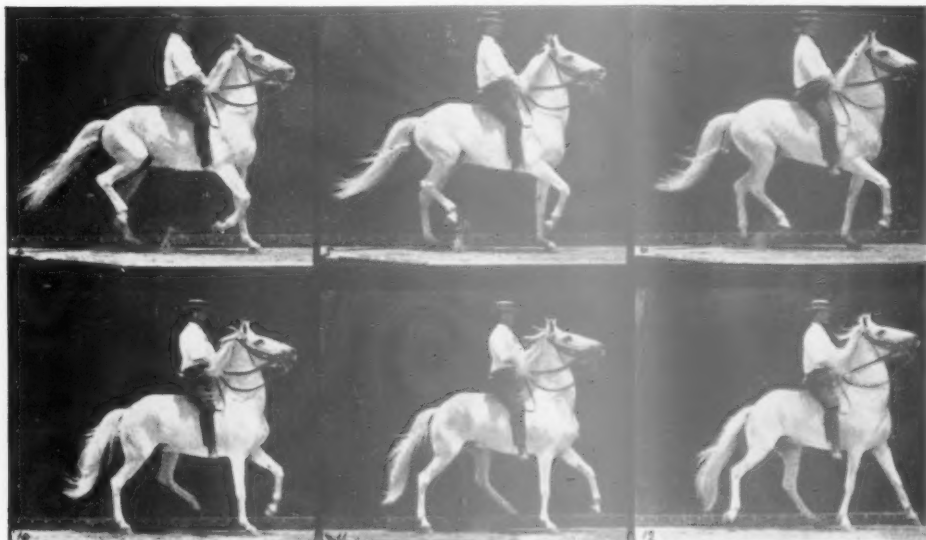
\*Illustrated with prints from the gelatin composite negatives Muybridge made to produce the collotype plates in *Animal Locomotion*.

†Medical Division, Eastman Kodak Company.

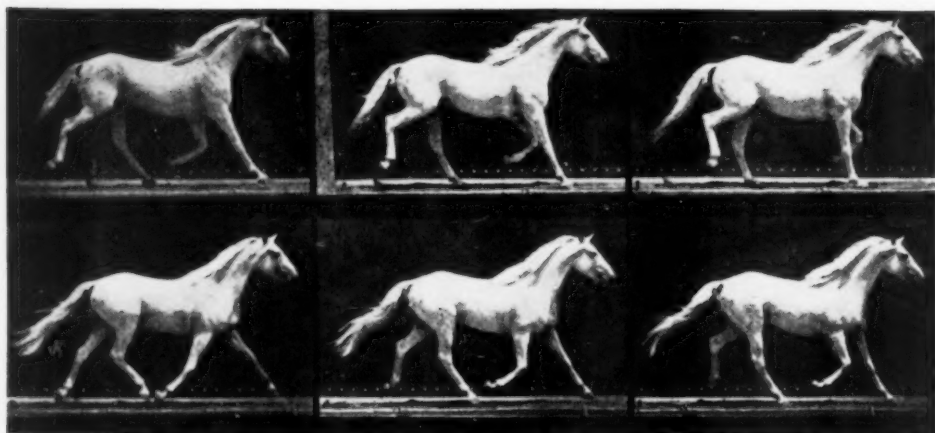


Figure 2 (above): A zoopraxiscopic wheel made from one of Muybridge's records. Line tracings were used by the printer since continuous tone reproductions were not practical at that time. The viewer stood in front of a mirror and spun the wheel on a stick carrying a pivot. The reflected images of the drawings were observed through the rotating slots held near the eye.

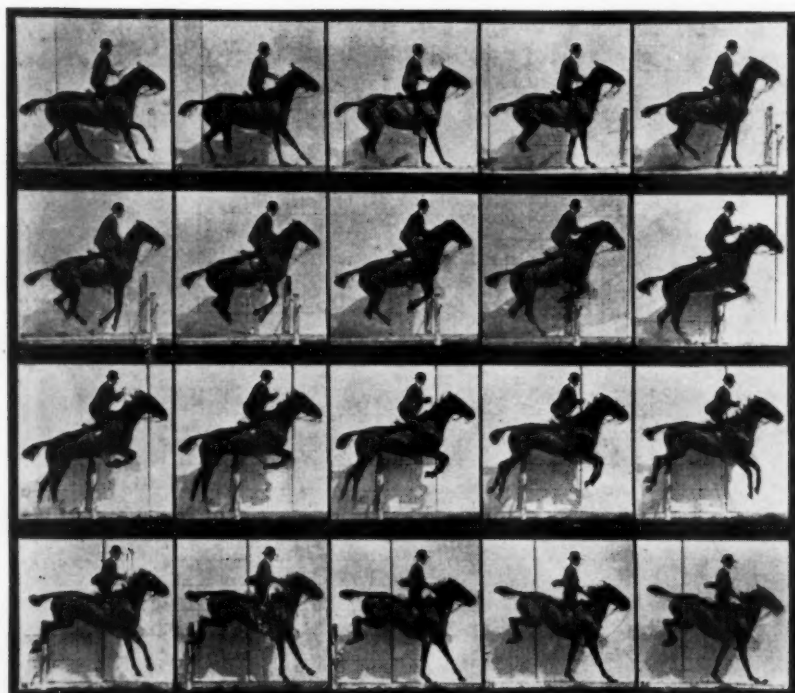
Fig. 1a (below): Studies of the horse in motion, of which this series is but one of many, initiated Muybridge's early application of photography to research. His work gave the first insight into animal and human locomotion. The fact that it has never been repeated with modern equipment, as a concerted single project, is indicative of its lasting value.

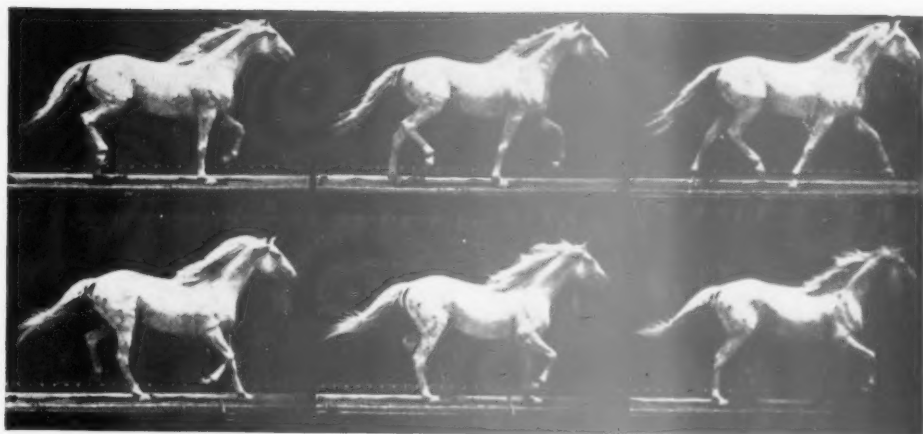






Figs. 1b and 1c: Two more examples of Muybridge's studies in animal locomotion.





along the camera-subject axis without the shift in perspective that occurred when 12 cameras in different locations were used. Thus, observations could be made more accurately. It was also used to photograph action that occurred in one location, and for upward movements. Numerous records were made from three viewpoints—lateral, front, and rear-oblique—by employing three batteries of cameras.

We are so used to "action" photographs and motion pictures, particularly those in slow motion, that the purpose of Muybridge's records may be overlooked. Prior to his work, even single pictures of a person or an animal in motion were rare. Muybridge's published records of animal locomotion were invaluable to anatomists, biologists, physicians, and artists. Never before had these professions had the benefits of such a revealing tool as the special cameras he utilized. His records demonstrated that all quadrupedal gaits are

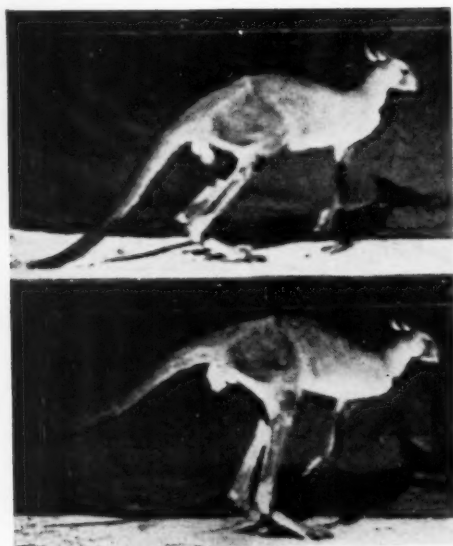
fundamentally the same and proved many classic depictions of animal postures to be incorrect.

Of particular interest are Muybridge's physiologic records made during the period which he worked at the University of Pennsylvania. He recorded normal and abnormal human movements for the famous neurologist, Dr. Francis X. Dercum, whose work in the field of artificially induced seizures threw much light on the pathologic physiology of convulsions. These researchers were aided by, and the resulting papers illustrated with, Muybridge's records or tracings from them.

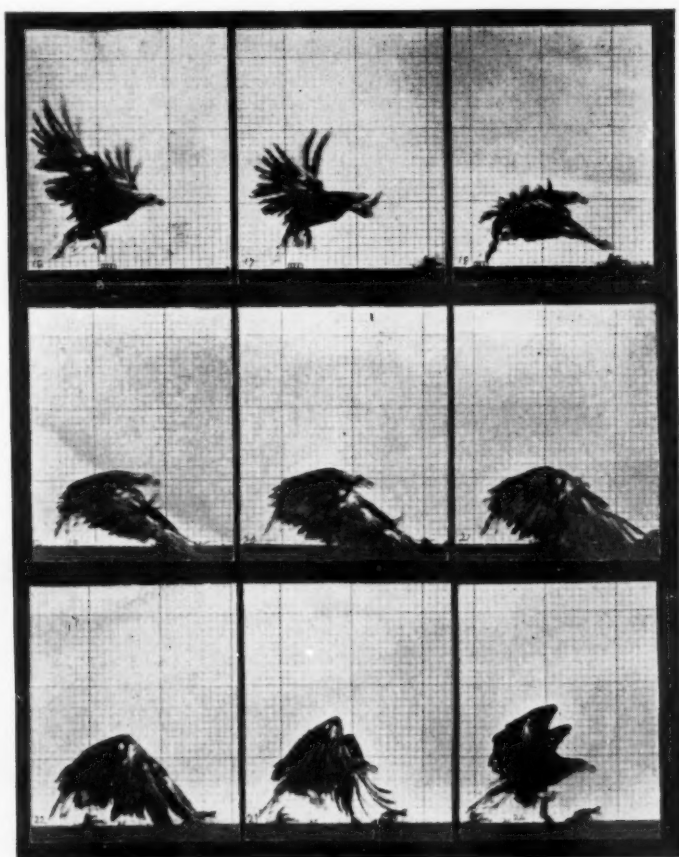
The ingenuity and originality of the scientific work at the University of Pennsylvania is further demonstrated by unique records of the beating animal heart made for Dr. Edward Reichert, Professor of Physiology. A large snapping turtle, with part of its carapace removed to expose the heart, was placed on a



Fig. 3: Studies that were of great value in art and physical education. Muybridge's work covered many phases of sport, labour and the daily motions of men, women, and children.



Figs. 4 & 5: Muybridge's serial photographs showed a new method of studying animal locomotion that was much more instructive than visual observation could be. Shown here are typical phases from the wide variety of records he made of captive and domestic animals and birds.



trolley. This was then run past the battery of cameras to take the place of the usual procedure of having the subject run or walk in front of the cameras. The heartbeat of the dog was also studied in this fashion.

In California, and later in Philadelphia, Muybridge provided the forerunner of the motion pictures now made to study athletic activities. (See Figure 3, for example.) In rowing, particularly, improvements in style were indicated that resulted in radical changes in classic technique. The motions of people at work and numerous other actions of men, women, and children were presented before his busy cameras.

Most of his work with horses was done in California. Later the Philadelphia Zoological

Gardens must have lent the University of Pennsylvania every animal it had, judging by the incredible variety of fauna he photographed. Even such uncommon captive animals as the sloth and kangaroo were studied. Domestic animals and birds were included (Figures 4 & 5).

The records he obtained of flying birds, such as the eagle in Figure 5, especially point to his technical achievements despite having to use slow photographic plates. The fact that he made about 35,000 negatives in two years at the University of Pennsylvania is indicative of his enthusiasm and the value placed by the University on the researches made possible by his momentous application of photography.

*Medical Radiography and Photography, No. 1*

## Forthcoming Salons and Exhibitions

	Approx. Closing Date		Approx. Closing Date
<b>Halifax International Colour Slide Exhibition.</b> Information from: Russel E. Heffler, P.O. Box 103, Bedford, Halifax, Nova Scotia, Canada.	May 1st	<b>Pamplona Salon.</b> Information from: Secretario del Salon, Apartado 297, San Sebastian, Spain.	June 1st
<b>Inter. Photo Ausstellung Osterreichischer Lichtbildnerbund Salzburg.</b> Information from: Inter. Photo Ausstellung Osterreichischer, Lichtbildnerbund, Hauptpostamt, 1 Schliessfach 76, Salzburg, U.S. Zone, Austria.	May 1st	<b>Salon International de Fotografica.</b> Information from: Sociedad Fotografica-de-Guipuzcoa, Apartado 297, San Sebastian, Spain.	June 1st
<b>Arddangosfa Ffotograffiaeth International Exhibition, Royal National Eisteddfod of Wales.</b> Information from: Edwin Roberts, Swyddfa'r Eisteddfod, Genedlaethol Llanrwst, North Wales, England.	May 4th	<b>South Shields International Exhibition.</b> Information from: J. E. C. Garrick, 12 Bywell Road, Cleaton, Nr. Sunderland, Durham, England.	June 1st
<b>El Camino Real Inter. Colour Slide Exhibition.</b> Information from: Eric Egenbright, 11626 Blix Street, North Hollywood, Cal. U.S.A.	May 12th	<b>Sydney University Photographic International Exhibition.</b> (For graduates, undergraduates and teaching staffs of any University or University College.) Information from: Sydney University Photographic Society, C/- Union, University of Sydney, N.S.W., Australia.	(not yet announced)
<b>Focus Fotosalon Amsterdam Salon.</b> Information from: Mr. Dick Boer, Zuider Stationsweg 33, Bloemendaal, Holland.	May 15th	<b>Y.M.C.A. Port Talbot Camera Club Inter. Open Exhibition.</b> Information from: B. Hudson, "Bryn Cothy," Baglan Rd., Port Talbot, Glamorganshire, Wales, England.	June 5th
<b>Shropshire Salon of Pictorial Photography.</b> Information from: G. W. J. Newey, Shropshire Society, St. Quinton, Porthill Dr., Shrewsbury, England.	May 16th	<b>Creative Gallery of Art Annual Exhibition.</b> Information from: Creative Gallery of Art, 18 East 57th St., New York, N.Y., U.S.A.	June 9th
<b>International Colour Slide Exhibition.</b> Information from: Berks Camera Club, Norman F. Weber (Chairman), 550 North 11th Street, Reading, Pa., U.S.A.	May 19th	<b>San Diego Southwest International Exhibition.</b> Information from: Photo. Salon Sec., San Diego County Fair, P.O. Box 578, Del-mar, Cal., U.S.A.	June 11th
<b>St. Louis International Salon of Photography.</b> Information from: Fred Kirby, 512 Missouri Pacific Buildings, St. Louis 3, Mo., U.S.A.	May 23rd	<b>Gateway to the North Exhibition.</b> Information from: The Secretary, Gateway to the North Exhibition, Edmonton, Canada.	June 15th
<b>New York State Museum of Flower Photographs.</b> Information from: W. J. Schoonmaker, N.Y. State Museum, Albany 1, N.Y., U.S.A.	May 25th	<b>Birmingham M.S.C.L.T. Scientific Lantern Slide Exhibition.</b> Information from: R. Cleaver, 14 The Mount, Cheylesmore, Coventry, England.	June 16th
<b>Finger Lakes International Salon of Photography.</b> Information from: Prof. Walter K. Long, Cayuga Museum of History and Art, Auburn, N.Y., U.S.A.	May 26th	<b>Midland Salon of Photography.</b> Information from: R. Cleaver, 14 The Mount, Cheylesmore, Coventry, England.	June 16th
<b>Memphis Exhibition Pictorialist Salon.</b> Information from: Mrs. Louis Clark Brooks, Art Gallery, Overton Park, Memphis, Tenn., U.S.A.	May 28th	<b>Calgary Stampede Salon of Pictorial Photography.</b> Information from: Gordon M. Tranter, 215 6th Avenue, West Calgary, Alberta, Canada.	June 18th
<b>American Photography Annual Competition.</b> Information from: Competition Secretary, American Photography, 136 East 57th St., New York 22, N.Y., U.S.A.	May 31st	<b>Salisbury Camera Club Exhibition.</b> Information from: R. H. Dunman, 20 Cornwall Road, Salisbury, Wilts., England.	June 19th
		<b>Edinburgh Photographic Society's International Exhibition and Salon.</b> Information from: J. Cameron Binnie, 16 Royal Terrace, Edinburgh 7, Scotland.	June 30th
		<b>Hawaii International Color Slide Exhibition</b> Information from: H. E. Ajamian, 2531 Manda Road, Honolulu, Hawaii.	June 30th

# Review of March Portfolio

I often feel that, to the photographic fraternity, there are few 'sitters' that are quite so obliging as cloud formations, mainly because their very shapes and moods can often be anticipated and awaited. Furthermore, other than as regards foreground, the cameraman has little opportunity to worry about a change of camera angle. Yet the canvas of the cloud formation is so gigantic that the photographer seldom feels that he is cramped or confined to a limited area.

The album in question, entitled simply "Clouds," offers us a group that is excellent in its variety and well bears out my initial statements. Considering the series as a whole, let me be guilty of one slight objection; this relates to those prints which tend to stand or fall on the use of clouds alone. Actually, some accessory elements are necessary to help out either the title of the picture or its basic composition. Let us take, for instance, the introductory print, A.L.G.'s "Rising Winds." One can readily notice the added impetus gained by the inclusion of the mounting sand dune and the obviously restless agitation of the grasses. The photographer has wisely taken a stance that allows the main movement of cloud to rise strongly from the dip in the dune or more particularly from behind the lower tones of the grassy knoll. The whole conception could not have been bettered.

Moving to K.M.'s "Thunder Head," I must say that I feel that strong dark corner to be more than a trifle overpowering. Had the photographer perhaps waited few minutes or seconds, or had she made several additional exposures, its dimensions could perhaps have been reduced. Another thought—perhaps the colour filter employed has been such as to produce an over-strong sky tone. With regard to the foreground, those two conflicting types of vegetation rather trouble me; maybe a change of viewpoint would have been an improvement, moving the camera until there was a unity of the two. As it is the eye tends restlessly to move from one to the other and then to dart up to the aforesaid dark corner.

R.M.K.'s "Afternoon Fantasy" is somewhat similar in arrangement. Here again I feel that the top left corner is too dark and too definite. Luckily in this case the situation was saved by the inclusion of complementary darks. The reproduction does not seem to be very satisfactory, but it is clear that the three dark trees provide a very effective balance in tones.

As I have often written, I feel that a suitable introduction of the human element can be most effective. In J.M.'s "Top of the World" the figure provides a connecting link, as it were, between sand, vegetation and sky; in its absence we would have had mere isolated strips. The unconventionally posed figure corrects all this by its introduction in just the right position. The edged lighting is also very helpful, this being productive of soft shadows that allow the figure to blend into the background instead of leaving it sharply isolated.

E.G.C.'s "The Marshes" is a print that greatly interests me, turning my thoughts back to the oriental print-makers and their ability to create delightful arrangements from the most simple of accessories. The marshland reeds, which here the photographer has used so effectively, are very much admired, beloved and regularly used by these clever decorative artists. What is more, the reeds convey the suggestion of the marsh without recourse to any caption, while the twist of the reed tops, caused by a gentle wind, brings about a

By KARRADJI

pleasant catching of the sunlight that nicely offsets the lower tone beneath. Note that just enough of the darkened sky has been allowed to show above the well-chosen band of low cloud—just sufficient to emphasise it and further the general feeling of movement.

While more often than not I have been known to object to trees being placed right on the print edge, H.C.'s "Wind Whirled" is a very likeable exception to the general rule. The reason for the successful placing lies in the perfect squaring of the branches to fit the corner and to act as a central point from which the streaky clouds can radiate. If you are not altogether convinced by my remarks, just place a couple of fingers over that horizontal branch and so judge for yourself.

On reference to the page showing editorial notes, I notice that O.T. made this photograph when he was in B Class, but that he has since moved on to A Grade. Even if I had not noticed the latter information I should have said that "Wind Swept" was definitely a pointer towards a step up in the world of photography; that is, if his future pictures conform to the quality and approach to composition here demonstrated. Just enough rocky skyline has been included to offset the upsurging masses of cloud in a sky of background tonal value that could not have been bettered. I also like the way in which the foreground has been relieved by the clever holding of a degree of middle tone—this tone effectively throws back the darks. There is one minor retouching job which I feel would have been quite permissible, and that is the retouching of those three or four spires that almost look like chimney pots. That U-shaped divide just to their left could have been bridged at the same time.

"Sunset" (G.S.) possesses all that is needed for a pleasant arrangement. The main masses are delightfully placed, and there is just enough almost unbroken dark effectively to offset the highlights of the setting sun. A point worthy of notice is those slight suggestions of cloud that so excellently relieve that inch or so of middle-toned sky at the foot. This is, of course, not the sort of introduction that can be made 'to order,' but when in attendance its co-operation is surely worth waiting for. Finally, here is an instance where the inclusion of a tree or trees would have upset the whole arrangement.

N.F.T.'s "After Glow" can hardly perhaps be called a cloud study 'within the meaning of the act,' but nevertheless its inclusion in this album is well worth while as a demonstration of the effective atmospheric effect that can be obtained by having a foreground silhouette. Not any type of silhouette will do, of course—the foreground must be of a definite nature, as it is in this instance. A point that is often overlooked is the fact that the printing-in of a silhouetted foreground into a cloud study is quite a simple matter and certainly very much easier than trying to locate a suitable foreground at the time a cloud study is photographed. Returning to the picture under discussion, I would draw your attention to the interesting shape of the tree at the right and the fact that its value would have been lost had any scrap of sky come into vision down the right print edge. Another point of value in the foreground is



# Eadweard Muybridge

1830-1904

(See also pages 230-237)

*Medical Radiography and Photography*, Vol. 26, No. 1.

Eadweard Muybridge made one of the first systematic applications of medical and scientific photography. His work was, and still is, an outstanding example of the use of the camera to reveal and record scientific data. This aspect of his work has had far-reaching significance—even more than his effort in making the first pictures of motion. The techniques employed have changed greatly—the basic aims not at all.

He was born April 9, 1830, Edward James Muybridge, son of John and Susannah. His father was a grain dealer in Kingston-on-Thames, England. Following a common-school education, he served an apprenticeship in the merchant marine, and navigation probably was his only scientific training. Shortly after his twenty-first birthday he immigrated to the United States, changing his name to the more euphonious version. He became interested in the new art of photography and, about 1860, went to the Pacific Coast as a commercial photographer employed by the United States Government. Here he received one assignment that was a new field for photography—providing documentary material about Alaska.

By 1872, Muybridge was the outside-view man for Bradley and Rulofson, photographers in San Francisco. In that year, an argument on the immemorial controversy over the gait of horses culminated in a wager of \$25,000 between Governor Leland Stanford, who led the faction avowing that all four feet left the ground in certain gaits at full speed, and Frederick MacCrellish, leader of the disputants claiming that at least one foot was on the ground at all times. And it was here that photography was first used as a research tool, for Stanford employed Muybridge to provide photographic evidence. However, Muybridge's experiments, made when 1/12 second with wet plates was a "speed shot," were only partially successful.

In 1877, Stanford asked Muybridge to renew the experiments. Employing a single camera, Muybridge obtained four silhouettes clear enough to prove Stanford's contention. The Governor's interest was so whetted that he suggested a battery of 24 cameras in a row to record gait phases. Because strings for tripping the shutters proved impractical, John D. Isaacs of Stanford's engineering staff was called in. The electric bell that had just been invented in Europe suggested an electric method. With a chronographic distributor devised by Isaacs for successive shutter release, Muybridge made hundreds of records at very fast speeds, considering the materials available.

Before a San Francisco audience, in 1880, Muybridge put together the motions he had taken apart with his cameras. This was done with a "zoogyroscope", which involved the use of magic-lantern slides mounted at the periphery of a revolving disc. By 1881 he had photographed many animals, including birds, and he had begun studying athletes in action.

In 1882, Stanford sponsored the elaborate volume, *The Horse in Motion*, by J. D. B. Stillman, M.D. It contains numerous illustrations from Muybridge's photographs. Other books and releases depicting animal and human motion followed; as a result anatomic and artistic thinking was revolutionized. In Paris, an artist with scientific leaning, Jean Louis Meissonier, met Stanford and requested Muybridge's aid. In 1881, he and Meissonier constructed a "zoopraxoscope" (an improved zoogyroscope). With it they again synthesized motion and accredited Muybridge's records as phases of the original motion. A series of lectures followed, including one in 1882 before the Royal Institution in London.

In 1883, Muybridge was invited by the University of Pennsylvania, Philadelphia, Pennsylvania, to continue his pioneering. He probably thus became the first research photographer supported by an institution. Thousands of records provided material for the eight huge volumes on *Animal Locomotion*, published in 1887, and for various condensations. Several original applications in medical and physiologic fields arose during the two years he worked in Philadelphia.

Lecturing and publishing in the U.S.A. and also abroad occupied Muybridge until 1893 when his demonstration, "Zoopraxographical Hall," at the Columbian Exposition in Chicago, Illinois, gave a last blaze of glory to his work. In 1900, he retired to his birthplace, Kingston-on-Thames, where he entertained his former countrymen with a replica of the Great Lakes dug in his garden. He died on May, 8, 1904.

## Review of March Portfolio *Continued*

the sloping nature of the gate and fence, which effectively produces a feeling of perspective carrying the eye to the sun's setting place, the latter shrewdly placed by the photographer in its correct spot in the composition.

The title page print, J.G.C.'s "Fishin'", is a good little print of the impromptu type—obviously not a great deal of thought has been given to possible improvements in the arrangement. I am especially thinking of the three vertical sticks in the water, the one that crosses the line of the 'fishing rod' and the other two behind the lad's head. An interesting point is the fact that these intrusions seem to assume a degree of importance much greater in the small reduction than in the original print—a point worthy of notice where reproduction is likely.

T.K.'s "Ross," on the front cover, is an excellent news picture, but hardly one that stirs my pictorial enthusiasm. Perhaps it is the straight-on angle of the surfboard and its rider and his undoubted competence that suggest realism rather than emotion; the latter calls for diagonal movement and a crouching uncertain pose.

There is one point to which I have often been going to refer, and that is the need for originality in pictorial work. If the photograph does not arise from one's own innermost thoughts, but merely represents a copy of someone else's idea the final result can hardly be expected to be a very great source of satisfaction to the owner. Beyond that, most students of pictorial photography have long memories; like the elephant of the fable, 'they never forget.'



# Review of Contest Entries

*NOTE: The attention of competitors is drawn to the necessity of always forwarding adequate return postage in respect of each group of entries.*

NUMBER OF ENTRIES .. ..	213
(A/S, 32; B/S, 82; A/O, 33; B/O, 66)	
NUMBER OF COMPETITORS .. ..	95
NUMBER OF NEW COMPETITORS .. ..	15
NUMBER OF PRIZE AWARDS .. ..	37

*J.F.A., South Camberwell.*—HC for "Summer Landscape"—attractive in print quality but conventional as regards subject matter. For your portfolio you might like to trim  $1\frac{1}{4}$ " from the right and  $\frac{1}{2}$ " from the top; we are still unconvinced as to the value of landscapes dominated by heavy trees down one margin. The other print seems of passing interest as a record only—it might have been a better proposition to concentrate on one or other of the figures as a more definite genre study.

*J.R.A., Portland.*—General handling fair, though once again we would question the wisdom of a solid black background for such delicate subjects as lilies. For your album we would suggest trims from top and bottom with a view to developing a square format.

*S.G.A., Toowoomba.*—Afraid the subject offered you very little, especially in view of the nature of the arrangement, which is so dominated by parallels. For your portfolio take a 2" trim from the left and try for a slightly softer print.

*F.B., Ryde.*—HC for "Real Australian" mainly on the grounds of good print quality and pleasant animation—hardly a pictorial picture.

*F.P.B., Goulburn.*—Welcome to the contest. We are not clear as to whether the diffusion was intentional or otherwise; in any case, it is undesirable in a subject mainly of souvenir interest. However, we suggest that you study the best examples of photographic work with a view to developing your outlook generally.

*E.H.B., Rosanna.*—Congratulations on two listings, and, of course, on your well-spent term as Print Director for P.S. of Vic. "Labyrinth" definitely appeals—could perhaps be strengthened by some further work in the direction of emphasising the lines of the roots by reducing the strength of the highlights on the earth, etc. "Evening Light" is on the heavy side and, in any case, did not offer a great deal.

*F.E.B., Sydney.*—HC for both prints, each being very fair in its own sphere. "The Plains" is perhaps the better; the difficulty here is the perennial one of too emphatic a foreground, and we would suggest that all this complicated detail be reduced to a uniformly dark tone with a view to keeping the interest on the middle distance, where it belongs. The character portrait is a very fair result along formal lines.

*A.E.B., Hamilton.*—HC for "Nature's Frame" on general grounds of a novel result; all the same we cannot help thinking that the young lady looks most uncomfortable amongst such rugged surroundings. The rocks incidentally should form a good setting for a cloud formation of rather more dramatic type.

*A.G.B., Mosman.*—Welcome to the contest. Your subject matter is one of the over-familiar topics here, but, apart from that, the print is rather flat and carries some stains suggestive of lack of care in processing. We would suggest that you call at the editorial office with a view to inspecting the work of fellow competitors.

*E.C.B., Haberfield.*—The better of your two is "Wake of the Fire," but, sad to relate, we consider that this would be considerably better just as a cloud study, i.e., by trimming away the ruins of the building. For the motive of after-fire desolation it would have been better to concentrate on just some small area. "By the Murray River" did not offer a great deal—at any rate, by that strong overhead lighting.

*J.B., Waverley.*—Fair technical results from somewhat unpromising subject matter. "Swamp Land" is the better, but the interest tends to be scattered amongst the numerous aerial roots of the mangroves—these could be toned down; we would also recommend a trim of  $1\frac{1}{2}$ " from the top. "Landscape" seems to have too much foreground interest and we would suggest a trim of  $1\frac{1}{2}$ " from the foot.

*N.B., Goulburn.*—"Tranquillity" is a pleasant atmospheric effect, though the subject matter tends to be rather distant; for your portfolio we would suggest trims of about 1" from foot and right with a view to concentrating interest. "North Coast Vista" is a nice print, but appears to be of souvenir interest only.

*H.P.C., Goulburn.*—Something appears to have gone wrong with the method you adopted for the printing-in of the clouds, the latter negative apparently having been grossly overprinted. Apart from that, however, we remain doubtful as to the pictorial value of road and rail bridges.

*F.V.C., Haberfield.*—Welcome to the contest. Satisfactory print quality is shown in your initial entry, the depth-of-focus being particularly well handled. As a subject, of personal interest only.

*F.G.C., Naremburn.*—Both prints embody a degree of pictorial quality, the better being "Steps of Remembrance." The weakness of the latter is the somewhat central nature of the horizon line, and a slight trim from the foot might be considered. "The Headland" represented weak material, owing to the fact that there is no one dominating element; for your album you might make a somewhat darker print, together with trims of  $1\frac{1}{4}$ " from foot and left, with a view to concentrating interest.

*F.T.C., Naremburn.*—HC for "Australian Landscape," which we consider to be the most promising of your entries, but the presence of the haystacks was perhaps unfortunate, there being almost sufficient interest without their presence. The remaining three prints are somewhat general in nature, the best being perhaps "Emerald."

*C.S.C., Ainslie.*—Congratulations on "Dusk Over Adelaide"—something different! In the other entry, the cloud formation seems somewhat too exotic for its subject matter, and consideration might be given to a trim from the left.

*H.C., Glen Iris.*—Award print attracted the judge's attention by the excellent handling of its subject matter, supported by first-rate print quality.

*J.G.C., Goulburn.*—Landscape subject appears to have been photographed under dull lighting conditions, so the yellow filter could hardly have been expected to produce that desirable grey tone in the sky. Landscape photography is a generally difficult field, but, above all, it is essential to develop a full degree of subject interest, as you will gather by inspecting the portfolio in this issue.

*F.J.C., Auchenflower.*—Some progress is indicated in your current entries, the best being the HC print "Rugged Beauty." The weakness is the very central horizon line and the slight feeling of emptiness towards the left—we would therefore recommend trims of  $\frac{1}{2}$ " from the top and left. Next we prefer "Repose"—this would stand a stronger print, also trims from right and top, the scattered cumulus clouds being over-insistent. Better print quality is shown in "Enchanted Pool"; considered as a subject, it is one most difficult to handle pictorially. It might be better handled at closer quarters, i.e., making more of a feature of the rock textures.

*R.F.C., South Hurstville.*—Improved print quality is shown in current entries, the best being "Quenching Their Thirst," in which the animals are admirably rendered; for your album a substantial trim from the top should be taken: "Between the Trees" had possibilities, but it seems to be in the nature of a two-picture arrangement; you might like to include it in your album in two versions—one with a substantial trim from the left and another from the right. "Saddled and Waiting" must be considered of souvenir interest only.

*E.R.C., East Kew.*—Both prints are rather on the contrasty side; we imagine that it would be possible to obtain a very much better print for "Hilltop." As this is mainly in the nature of a tree study, we would suggest trimming to touch the leaves to either side. The foreground might be darkened at the same time. "River Paddock" shows better quality, but the interest tends to run away to the right. You might consider including two versions in your album, one with a trim from the right and one with a trim from the left.

*P.R.C., Bishopscourt.*—Subject matter for "Good Afternoon" is very general, although the area might be worthy of closer study, using varying viewpoints and under changing lighting conditions. Study the landscape portfolio in this issue.

*J.D.C., Longueville.*—Very fair print quality is shown in "Green Pastures," but the chief appeal is really in the decorative nature of the branches rather than in the landscape; perhaps a lower viewpoint would have rendered a greater importance to the former. "White River Gums" presented the inevitable problem of simplification—might be worth studying under varying lighting and atmospheric conditions.

*E.G.C., Oaklands.*—Prize award for "South Channel Light" mainly on the grounds of bold handling and interesting textures. The river scene is delightfully recorded, but mainly of record interest.

*B.V.D., Hurlstone Park.*—Congratulations on the two awards—the art gallery interior is excellently handled. We also like the V.J. subject as far as the lighting and sense of movement go, and you might like to consider eliminating everything that does not relate to these two items, i.e., by taking a  $\frac{1}{2}$ " trim from the top and a little from either side.

*J.C.D., South Yarra.*—Welcome to the contest and hearty congratulations on "Gull Colony"—a good little action picture obviously secured with difficulty. "Lone Sentinel" is also a good technical result with your Brownie camera. Shrine subject is excellently recorded, but mainly of souvenir interest. We are looking forward to your progress.

*A.D., Bendigo.*—First-rate technique is exhibited in the waterfront series, the best being "Taking the Line." For your album take a 2" trim from the left, using a somewhat darker print. Next would come "Evening Reflections," subject to substantial trims from left and top, with a view to making more of the principal subject matter. The other two are somewhat commercial in general style.

*H.E., Eastwood.*—HC for "Wheels"—nicely recorded as regards tonal quality but weak as a composition, with all lines running strongly out towards the right.

*G.E., Papatoetoe.*—Third (Equal) for "Making Friends," a delightful little scene well recorded.

*F.L.E., Narromine.*—Pleasingly animated result for a home portrait, with a good tonal rendering throughout—a welcome addition to the family album.

*E.W.E., Sale.*—"Forest Road" is the better of your two, this being pleasingly recorded along conventional lines. "Phillip Island" is very general in scope; we feel that this is the type of subject which requires special atmospheric conditions or unusual play of light and shade to have any particular pictorial value.

*M.F., Taylor's Arm.*—"The Struggle" is something of a puzzle picture, but, nevertheless, we could not resist the bold treatment, this always counting with the judge. "Valley Flood" is more in colour vein and appears to be slightly over-printed. For your album take a trim of about 1" from the top and bring up a greater degree of interest in the water by very restrained local reduction. The 'S' shape gives you a very valuable basic composition.

*J.F., Goulburn.*—Welcome to the contest and congratulations on HC at first appearance. An excellent result as a general view of the valley, but, of course, it remains impossible to establish any particular composition or definite arrangement with such very distant material.

*A.L.G., Geelong.*—Full marks for your dramatic cloud study, the shape of which is well in keeping with the desolate foreground. "Down by the River" gained HC for its very superior print quality; considered as an arrangement, the interest is scattered and the inclusion of the models was hardly necessary under the circumstances. Might be worth trying again under softer lighting conditions.

*H.G., Fivedock.*—Best of your quartette is "River Torrent"; we believe this has already been reproduced. Next would come "Batlow Road." "The Valley Corner" has possibilities using a considerably stronger print and more restrained local reduction. "Tumut Common" is more in colour vein.

*H.L.H., Ulong.*—"Eastern Dorrigo Farmhouse" had possibilities, but, of course,  $f/11$  was hardly a small enough stop to give you the depth-of-focus required. The area generally appears promising for photography.

*R.J.H., Dulwich Hill.*—"Lady Carrington Drive" is the best of yours, but on this occasion the focus appears to have been set too far short of the principal subject matter; however, the atmospheric impression is quite pleasing. "Jibbon Lagoon" offered very little other than perhaps in colour vein.

*G.H., Pennant Hills.*—"Home in the Hills" just a very fair result from slight material. Some human interest would have helped.

*O.H., Pennant Hills.*—Print rather contrasty, probably on account of the very extensive brightness range of the subject; apart from that, mainly of souvenir interest or colour appeal.

*F.P.H., Thornbury.*—Prize award for "Summer Glory" mainly for good decorative feeling. In view of the many varying textures in its upper four-fifths, we would suggest eliminating almost all detail in the landscape area.

*L.E.H., Hamilton.*—HC for your entry on general grounds, but as a subject the scene offered you very little either as regards foreground or cloud formation. We recommend you to study the prizewinning entries as reproduced.

*B.J., Wollongong.*—"Sultry" is the better of your two, but the print as presented is on the flat side and the cloud formation indistinct—we suggest that a very much better presentation would be possible. Interest in "Lonely Landscape" appears to be very distant; we believe matters would be improved by drastic trims from right and foot.

*P.M.J., Camberwell.*—Current entries demonstrate first-class technique, but none of the subject matters can be considered very strong pictorially. "The Yarra" is perhaps the best, but we would certainly take  $1\frac{1}{2}$ " from the right—that black tree trunk is much too dominating. "Liqueurs" is excellently recorded, but generally in commercial vein. "Marie" is a fair result for an indoor portrait, though in future versions you should soften that second light very considerably and bring it more around towards the front for 'fill-in' purposes.

*J.H.J., Batlow.*—Congratulations on the three listings. "Water Baby" is certainly the most pictorial, the weakness being the somewhat uncomfortable pose of the youngster; there is also the fact that the camera focus appears to have been set for the rocks at the rear rather than on the principal subject matter. This is an instance where a higher viewpoint would have brought out the ripples more satisfactorily. However, "Daddy's Girls" duly gained an award—not so much on pictorial grounds as in recognition of superior technique and delightful animation. The other entry is somewhat commercial in style, but presentation could be improved by trims of about  $\frac{1}{2}$ " from the left and a couple of inches from the right; as presented, too much interest is drawn to the margins of the picture, but if you will try the above trim you will surely agree that the textures and tonal values then tend to assume a much greater degree of importance.

*T.K., Bondi Beach.*—HC for both entries on general grounds, but we cannot help feeling that in both instances a very much better result could have been obtained. "Teamwork" is the better; weaknesses are the dull lighting conditions, under-exposure and insufficient foreground. The other print is of souvenir interest only.

*C.R.K., Caulfield.*—Of your group we consider the portrait of the dog to be best, although the handling generally tends to be formal and static. "Sunlit Branches" had possibilities, but exposure seems to have been cut unduly short with  $1/50$  sec. at  $f/8$  with a green filter. The area looks promising and might be explored under varying lighting and atmospheric conditions. The other two prints are first-rate in quality but of souvenir interest only.

*B.K., Mildura.*—The portrait of the youngster is the better of yours, thanks to the unconventional pose and general feeling of action, but at the same time it must be admitted that technique is not quite up to the mark. The landscape subject offered you very little, either as regards foreground or cloud effect.

*F.L., Toorak.*—HC for "The Veteran," which is nicely recorded. "Halcyon Days" is rather on the contrasty side; we imagine that it would be possible to obtain a very much better print. "Landscape" had atmospheric possibilities, but from the existing viewpoint the subject is very effectively divided vertically into three exactly equal areas.

*G.H.L., Ipswich.*—Welcome to the contest. We imagine that it would be possible to obtain a very much better print for "A Summer's Day," i.e., one in which more tone was to be seen in the sky area, while at the same time the foreground might be 'flushed' darker. Taking it generally, mid-day lighting conditions and a clear sky seldom represent a promising occasion for tree and landscape photography.

*E.C.L., Highett.*—Most pleasing of your four is perhaps "Our Country," mainly on atmospheric grounds; actually the viewpoint does not seem to have been very well chosen, the interest being very scattered. For your portfolio take a foreground trim and work out those white highway posts. Next would come "Winged Grace"—a novel picture, but unfortunately one in which no portion is quite sharp; it may be possible to obtain a sharper print. There hardly seemed any need for the heavy foreground tree in "Distant Snowfall"—surely this is much too dominating. For your album take a trim of about  $1\frac{1}{2}$ " from the left and a couple from the foreground. "First Snow" is mainly of souvenir interest.

*J.M.L., Hay.*—A very fair technical result with your Retina, though lighting conditions might well have been a little brighter at the time of exposure. For your album take a  $1\frac{1}{2}$ " trim from the right and include a shade more foreground.

*K.M., Launceston.*—HC for both entries on general pictorial grounds. "Mountain Country" is the better, but we feel that you have included rather too much sky; it would be better with only just, say,  $\frac{1}{2}$ " sky showing above the highest mountain. Make a somewhat stronger print of the balance, darkening the miscellaneous detail in the bottom left corner. "Country Road" is a pleasant impression, the weakness being the scattered nature of the arrangement, the various elements not holding together very well.

*G.H.M., Mildura.*—HC for your landscape, an excellent result from slight material.

*R.M., Swansea.*—Prize award for your portrait for its interesting tonal rendition; as an arrangement rather formal.

*E.L.M., Fairy Meadow.*—"Wintery Scene" appears to be the best of the landscapes, mainly by virtue of its appealing tonal range; considered as a landscape, the interest is somewhat scattered and actually several trims would be possible. "Riverside Farm" seems to us to need the appeal of colour, and in "When Shadows Fall" a much higher viewpoint would have enabled you to obtain the full benefit of the meanders of the creek. The child study gained HC mainly for attractive print quality and good animation—a welcome addition to the album.

*K.M., Haberfield.*—HC for your entry mainly on the grounds of animation and unconventionality. Pictorially it is weakened by the strongly patterned materials and unduly low viewpoint.

*D.M., Morningside.*—HC for the character study, but we feel that this type of subject is better handled on genre lines rather than as a close-up.

*G.M., Wangaratta.*—Welcome to the contest and congratulations on a listing at first appearance. "Secluded Farm" is the best, but lighting conditions were not altogether favourable, leading to a somewhat contrasty result—would be worth trying again. "Summer Landscape" also had possibilities, but again we would like to see improved print quality; also a trim of an inch or so from the left, as that curly tree down the margin appears to attract too much attention to itself. Interest is rather scattered in "Day Commences"; for your album take trims of a couple of inches from the right and about one inch from the foot, with a view to concentrating appeal.

*K.L.M., Tooscoomba.*—Current entries more promising, though as subjects they are rather more in colour vein than for black-and-white. It is next to impossible to simplify reflection subjects of this type.

*R.G.M., Broken Hill.*—"Broken Hill" is hardly a landscape, being more of an industrial scene. Apart from that, though tonally attractive, it is really commercial in style.

*L.S.M., Eagle Junction.*—HC for "Windswept" on general grounds of print quality and subject selection; however, the arrangement seems to be somewhat drawn out, with most of the interest at the top and foot. We suggest that you review your trimming of this subject.

*J.P.M., Cremorne.*—Welcome to the contest and full marks for very satisfactory technical results from 24 x 36mm. The best of the four is "Shoalhaven"—a somewhat larger print with a little more tone in the water would look very attractive. Next would come "Coastal Slopes," subject to a considerably darker print with the foreground 'flushed in'. "Kangaroo Valley" is rather general, but an excellent record of the outlook. "Looking Back" offered very little, everything being much too distant. The photography of distant landscapes is something of a difficult task for the miniature, and we would recommend that you work at closer quarters—this type of photography is more suitable for small cameras. For a general survey of current trends in landscape study the portfolio reproductions in this issue.

*B.E.M., Katoomba.*—The better of your two is "Crawford's Lookout," though actually this type of subject is more suited to colour photography—your result is excellent technically, considering the brightness range involved. Focus for "Mulgrave Valley" appears to have been set at some distance short of infinity, and in consequence practically all the distance is out-of-focus; apart from that, the print is marred by numerous surface defects.

*G.M., Bankstown.*—Welcome to the contest. Print shows very fair technical quality and would be a pleasing addition to the family album.

*L.G.N., Wahroonga.*—Both prints rather on the heavy side; the lighting being dull on both occasions, there was hardly any need for the K1 filter. "Early Morn" is the better, but the scene is dominated by the heavy darks to the left and a trim of a couple of inches from that side is indicated. "Open Road" offered very little with its principal lines leading with strong perspective out of the picture to the left. Apart from the under-exposure referred to, your technical qualifications appear very fair, and it is now principally a matter of studying the best available examples of pictorial work, with a view to developing your outlook generally.

*N.O., Cardiff.*—Prize award for "Left Behind" mainly on grounds of superior technique; as a subject not very exciting, and, of course, it is difficult to organise a composition with objects so vastly different in shape and texture. The portrait of the lad is somewhat diffused, owing to insufficient depth-of-focus, otherwise pleasantly informal.

*M.P., Rylstone.*—"Lined Up" is the better of your open entries, something approaching a composition having been secured; technically the print is marred by numerous surface markings. "Cement Silos" is nicely recorded tonally, but pictorial requirements suggest that a greater degree of subject selection be exercised. Of the landscape entries, "Lagoon at Kurnell" is easily the best, and we feel that something might be done with this subject; points to be considered are the central position of the horizon line and the close similarity in tone between the trees and their background. "Drowsy Summertime" would come next—very attractive as regards print quality, but we would like to see a dark foreground almost up to the fence (to hold the arrangement together) and, of course, there should be a trim of about  $1\frac{1}{2}$ " from the foot. "Mudgee Town" is quaint; it is a pity that the town was so far distant, but a trim of 1" from the right would improve. "Lengthening Shades" is nicely recorded, but the material too formal to have offered you very much.

*R.R., Moonee Ponds.*—"Standing Room Only" is the best of the open entries, a novel picture well recorded, though a trim from the top would do no harm. "Collins Street Corner" is rather a mixture and hardly holds together as regards composition. Of the two boat subjects, "Fisherman's Boat" is the better, having the merit of some composition, the other being merely a photograph of two boats side by side. "Greenvale Pastures" is on the heavy side—might be possible to obtain a softer print.

*P.R., Goulburn.*—"Rangers" exhibits very pleasant tonal range, but not a great deal as regards composition, the two dark trees being so very dominating.

*K.F.R., Swanson.*—Welcome to the contest. "Manilla Weir" shows good tonal quality, but the print itself is on the flat side—you should strive for more punch in your prints. Considered as a scene, it is somewhat conventional in arrangement, but, of course, it could hardly be otherwise with so definite a subject as a weir. Your technical qualifications appear to be very fair, and it is mainly a matter of developing your pictorial outlook generally.

*J.R., Hazelwood Park.*—Full marks for your good contact quality and unusual outlook generally. "Bent Branch" is perhaps the best, but we should trim as far as the leaves on the left, as the square format is more powerful for subjects of this type. "Hill" depicts a strange effect and would make a very interesting enlargement. "Cliff" being mainly in shadow hardly offered you very much; it might look better under some other lighting conditions. The close-up is quaint but not very interesting as subject matter; for your album take a trim from the left.

*J.R., Broken Hill.*—Very attractive print quality is seen in your old winding gear picture, but the approach is somewhat general; the better proposition would be to have selected some small individual section embodying a composition or design. The close-up is amusing, but there appears to be no reason for so much unrelieved black background.

*E.R., Caulfield.*—Prize award for wheel subject—though a little all-overish in tone, it has the definite merit of possessing a degree of arrangement.

*D.M.S., Scene.*—The cloud formation is rather dominating in "Plain Country"—might be worth trying again with a different type of formation. Lighting conditions were also rather stark for "Hilltop," while the light foreground and grass presented a definite problem as regards solid foundation.

*G.L.S., Moorooka.*—Both entries commendable to a degree. "Open Pasture" is the better; it embodies an excellent tonal range, but is weakened by the vertical divisions which tend to throw the print into two halves. Under the circumstances we would recommend a trim of a couple of inches from the right and about 1" from the top. Supplementary lighting was a pre-requisite for "Old-Timer"—you might have another try at him (preferably without that striped shirt).

*M.S., Gardewale.*—Of your three we prefer "Out-back," but we would definitely eliminate the grove of pines, as its inclusion tends to be at variance with the general theme, while a somewhat darker print might also be considered. "Grazing Paddock" is somewhat formal, and certainly the print is too hard in tone. "Secret Pool" is novel, but with so much other decorative material around, there hardly seems any need for the inclusion of the fisherman.

*W.A.S., Croydon.*—"On Panorama Circuit" is probably your best to date, subject to a trim of about 2" from the left and  $\frac{1}{2}$ " from the top. Control measures might well be used to tone down scattered foreground highlights. "Fish River Dam" is rather general, but would be improved by trims from left and foot.



*R.W.S., Albury.*—"Beach Study" is perhaps the best of yours, subject to a trim of, say, 1½" from the right and a little from the top; also a shade darker print, giving more tone to the wet sand. "Beached Boats" would come next, this time with a trim of 1½" from the left, to give square proportions. In "At the Baths" the moment of exposure should have been deferred until the figures assumed a more pleasing grouping. "Sunlit Trees" is perhaps the best of the landscapes; you have encountered the age-old trouble of 'too much of a good thing.' The Murray Bridge subjects were difficult material; the better is perhaps "Light on the Murray," but we suggest eliminating 1½" from the foreground, letting the subject go as a cloud study. In "Murray River" the foreground is the more interesting area, and a 2" trim from the top is recommended.

*I.U.S., Margate.*—"After the Race" is easily the best of yours, thanks to good foreground interest. We would suggest you have this enlarged, taking a ½" trim from the right. "Scott's Point" would come next, again with a trim from the right. The trees are the best portion of "Gateway." "Day is Done" is interesting, while the two sailing skiff subjects show evidence of camera movement.

*F.R.S., Bathurst.*—Glad to hear from you again. Very attractive print quality is shown in "Weather Worn," and a more pleasing arrangement would be obtained by taking trims from left and foot, thereby bringing the axle to its correct position at the intersection of thirds.

*R.N.T., Maroubra Bay.*—Your initial entry is acknowledged, but on inspection it would appear that the entry does not accord with A.P.-R. contest rules. Taking it generally, overhead sunlight and brick walls provide the worst possible conditions for child portraiture.

*J.M.T., Hyde Park.*—We can hardly go past "Sea Garland" on the grounds of 'something different,' despite its somewhat confusing composition—fine print quality, too. "Majestic" is the best of your landscape entries; this exhibits very attractive print quality but is really more of a tree study than a landscape. It is weakened by the 2" foreground of debris, and we would suggest that you trim away about 1" of this and 'flash' the remainder. The sand dune subject is fair, but, of course, this topic is one of the over-familiar ones, and it requires a very striking version to attract the judge's attention. "Back Waters" again possesses attractive print quality, but as a scene is very general.

*R.J.T., Woodville.*—Welcome to the contest. "Mammy" is amusing and generally cleverly handled, though there appears to be some over-all diffusion. The other open subject offered you very little, there

being no scope for pattern, composition or decoration. Exposure was hardly enough for the landscape entry, in view of the fact that more than half the scene was in deep shadow; as it is, the picture falls into two halves, one the shady half and the other the brightly lit portion.

*K.M.W., Hamilton.*—We were pleased to receive your texture subject, "Oaten Stalks," which had the pleasant merit of being 'something different.' Once again we would like to see a square format, and trims from top and foot should be considered (mostly from the former). "Mountain Backdrop" attracts by its interesting tonal range, but remains very restless as a composition. Trims from foot and right might be considered with a view to bringing up the mountain to its rightful degree of importance.

*A.F.W., Sherwood.*—HC for "Landing Stage" mainly on the grounds of superior print quality. However, that overhanging tree is much too dominating, and we would like to suggest trims of about 4" from the right and two from the top; in our opinion, the section that remains would possess quite enough subject interest.

*M.J.W., Elmhurst.*—Swan subject is above the average, but print is on the contrary side. A trim of 1½" from the right would improve. "Interior" is somewhat diffused, apparently due to incorrect focusing. Lighting appears to have been over-strong.

*M.G.W., Leichhardt.*—Welcome to the contest. HC for very attractive print quality, but some control measures are desirable, with a view to simplification generally, especially as regards the foreground highlights—always a problem in the Australian landscape at mid-day.

*G.W., Belair.*—With regard to your extensive group we would say that the majority need a greater degree of concentration on essentials and less contrasty treatment. "Tough Going" is perhaps the best, owing to the feeling of movement. Next would come "Hay Carting," though surely this would be better without the tree, the inclusion of which merely sets up a competing interest. Somewhat similar remarks apply to "Hay Cutting." "Peaceful Grazing" is perhaps the best of the landscapes, though some signs of camera shake are in evidence. "Over the Hill" shows better atmospheric quality, but the white foreground is something of an eye-catcher and should have been avoided. The left-hand section of "Summer Pastures" is the best and might be re-submitted in a softer print. In "Springtime" there is a diversion of interest with the eucalyptus, three draught horses, and spring blossoms, all varying elements with little in common. The horse portrait is animated, but print again much too contrasty.

*A.E.W., Subiaco.*—Welcome to the contest. Your initial entries show first-class 'commercial' quality, not forgetting the very superior glazing. "Gr-r-r-r" is the better, amusing and delightfully animated, though interest could be concentrated by suitable trimming. The park scene is sharply recorded, but of souvenir interest only.

*N.Y., Bondi.*—Welcome to the contest. The landscape is the better of your two entries, though actually the subject offered very little, in view of its somewhat congested nature. For your album we suggest you eliminate the whole of the light foreground, which tends to be at variance with the tonal balance of the remainder. This step will leave the giant tree without a base, but we consider this to be the lesser of two evils. "Tranquil Waters" is on the heavy side, and we should have felt inclined to have concentrated just on the horse and the river shallows rather than include the silhouette of the tree and so much distant landscape; actually the most interesting part of the picture is to be found in the bottom left third.

## AWARD LIST

### MUSWELLBROOK 1952 EXHIBITION

**Silver Medallion:** Ivan Yakovenko, Hobart, Tasmania (Contest).

**Bronze Medallion:** Howard D. Hughes, Kirribilli, N.S.W. (New Chum).

**Bronze Medallion:** John L. Wray, A.R.P.S., Beecroft, N.S.W. (Autumn Leaves).

**Merit Certificates:** H. J. Cox, Orange, N.S.W. (Winter's Fantasy); J. D. Johnstone, Sandringham, Vic. (Coastal Stragglers); M. J. Wright, Ashfield, N.S.W. (Portals of Knowledge); John L. Wray, A.R.P.S., Beecroft, N.S.W. (Anzac Memorial by Night); M. J. Wright, Ashfield, N.S.W. (Windswept); G. L. Searle, Moorooka, Queensland (Country Road); C. R. Hartmann, Heidelberg, Vic. (Stately Group); Ralph E. Seaman, North Unley, South Australia (Moonlight Bay); Robert Ritter, Moonsee Ponds, Vic. (Still Study).



*Silver Medal Award*

*Maitland Salon 1952*

**Max Dupain** *MT. MORGRANI*



# Editorial Notes

## PRIZE LIST FOR APRIL, 1952

### CLASS A—SET SUBJECT

- First †“Morning,” B. F. Nicholas.  
(Equal) †“Approaching Storm,” H. Cleveland.
- Second †“By Wyndham Marsh,” C. S. Christian.  
(Equal) †“You Yang, Victoria,” E. Rotherham.
- Third †“Impregnable,” O. Truchanas.  
(Equal) †“Tuggerah Lake,” A. E. Brown.  
†“Morning Mists,” F. L. Elrlington.  
†“Lakeside,” F. P. Hion.  
†“The Batlow Road,” H. Grenenger.
- Highly Commended: J. F. Abson, F. E. Bennett, F. T. Charles, C. S. Christian, B. Jessop, K. Malcolm, G. H. Mansell, M. Potter, R. Ritter, M. Sheppard.

### CLASS B—SET SUBJECT

- First “Silent Gums,” J. M. Tippet.  
(Equal) “Morning Glory,” K. M. Walker.  
†“Toowoomba Range,” S. G. Apelt.  
†“Shepherd’s Delight,” E. L. Malone.
- Second “Dust Storm Approaching Oaklands,”  
(Equal) E. G. Cubbins.  
“Solitude,” L. S. Meares.
- Third “The Old Cart Track,” E. J. Plank.  
(Equal) “Pastorale,” D. M. Saunders.  
“Ranger’s Haven,” J. G. Clegg.  
“Sunswept,” \*F. R. Smith.

Highly Commended: E. H. Baxter, E. W. Evans, \*J. Fisher, L. E. Huf, T. Kelly, E. C. Leigh (2), E. L. Malone, L. S. Meares, \*G. McGuffie, Patsy Robinson, J. Rogers, G. L. Searle, W. A. Stow, J. M. Tippet, K. M. Walker, \*M. G. Wilson, \*N. Youngman.

### WELCOME TO FIFTEEN NEW COMPETITORS

A cordial welcome is extended to the following new competitors: A.G.B. (Mosman), F.P.B. (Goulburn), F.V.C. (Haberfield), J.C.D. (South Yarra), J.F. (Goulburn), G.H.L. (Ipswich), G.M. (Bankstown), G.M. (Wangaratta), J.P.M. (Cremorne), K.F.R. (Swansea), R.J.T. (Woodville), R.N.T. (Maroubra Bay), A.E.W. (Subiaco), M.G.W. (Leichhardt), N.Y. (Bondi). Prize awards gained by the group included one Third (Equal) and a number of H.C.’s.

### CLASS A—OPEN

- First “Dusk Over Adelaide,” C. S. Christian.  
(Equal) “Smoky River,” H. Cleveland.
- Second “Where Swept the Forest Fire,”  
(Equal) A. L. Gooch.  
“Interior,” B. V. Davis.  
“Standing Room Only,” R. Ritter.
- Third “Portrait,” R. Manuel.  
(Equal) “Abandoned,” E. Rotherham.  
“Summer Glory,” F. P. Hion.  
“Lined Up,” M. Potter.

Highly Commended: F. E. Bennett, A. E. Brown, B. V. Davis, A. L. Gooch, F. Lewis, K. Malcolm, Kiki Mathews, D. McDermant, R. Ritter, J. Roper.

### CLASS B—OPEN

- First “The Struggle,” M. Farrawell.
- Second “Sea Garland,” J. M. Tippet.  
(Equal) “Labyrinth,” E. H. Baxter.  
“Daddy’s Girls,” J. H. Johnston.
- Third “Quenching His Thirst,” B. Kozlowski.  
(Equal) “Left Behind,” N. Ozolins.  
“Bennie,” C. R. Knight.  
“South Channel Light,” E. G. Cubbins.  
“Making Friends,” G. Evans.
- Highly Commended: F. Bailey, F. G. Charles, F. J. Cooney, R. F. Corbett, \*J. C. Dobbie, H. Earl, P. M. Johns (2), J. H. Johnston (2), T. Kelly, C. R. Knight, J. M. Low, E. L. Malone, N. Ozolins, G. L. Searle, F. R. Smith, A. F. Wallis, K. M. Walker, \*R. J. Tulloch, G. Windle.

†Indicates reproduction in this issue.

\*Indicates new competitor.

(The Contest Rules were last published in January, 1952.)

### CHANGE OF CLUB SECRETARY

Bendigo Camera Club  
Hon. Sec./Treas.: N. D. Coward,  
3 Old Violet Street, Bendigo, Vic.

### CAPTIONS AND TECHNICAL DATA

Cover Illustration:

**Old-Timer**, F. L. Elrlington.—Class B, Special Award, Set Subject for Character Study, December, 1951. Exp. 1/50 sec., f/8, Super-XX, reflex.

*Australian Landscape*—Pages 211-229:

**Impregnable**, O. Truchanas.—Third (Equal), Class A, Set Subject for April. Exp. 1/50 sec., f/11, Super-XX, yellow filter, reflex.

**The Ghost House**, M. Farrawell.—First, Class B, Open for February. Exp. 1/100 sec., f/11, Super-XX, K2 filter, reflex.

**Tree Tracery**, K. Douglas.—Second (Equal), Class B, Open for March. Exp. 1/25 sec., f/8, Super-XX, light green filter, Ensign Auto-Range.

**Morning**, B. F. Nicholas.—First (Equal), Class A, Set Subject for April. Exp. 1/500 sec., f/5.6, Super-XX, G filter, reflex.

**Mist in the Hills**, F. Lewis.—Third (Equal), Class B, Set Subject for December, 1950. Exp. 1/25 sec., f/5.6, Super-XX, K1 filter, folding camera.

**Shepherd’s Delight**, E. L. Malone.—First (Equal), Class B, Set Subject for April. Exp. 1/50 sec., f/11, Super-XX, yellow filter, reflex.

**Early Morn**, F. L. Elrlington.—Second (Equal), Class B, Open for March, 1951. Exp. 1/25 sec., f/11, Super-XX, folding camera.

**Toowoomba Range**, S. G. Apelt.—First (Equal), Class B, Set Subject for April. Exp. 1/100 sec., f/11, Super-XX, orange filter, folding camera.

**Autumn Squall**, A. P. Beswick.—Third (Equal), Class B, Open for July, 1951. Exp. 1/75 sec., f/8, Super-XX, K2 filter, folding camera.

**Tuggerah Lake**, A. E. Brown.—Third (Equal), Class A, Set Subject for April. Exp. 1/100 sec., f/16, Super-XX, reflex.

**Rising Storm**, Molly Lyons.—Second (Equal), Class A, Open for May, 1951. Exp. 1/200 sec., f/8, Super-XX, reflex. →

# The Photographic Societies

## KINGAROY AND DISTRICT PHOTOGRAPHIC CLUB

The meeting of February 12 was held at the C.W.A. rooms, and was open to the public for the showing of films kindly loaned by the Adult Education Dept.

Competition results were: No entries in A Grade. B Grade—1, P. Holden; 2, A. Eyres; 3, R. Sollaye.

General comment on all prints submitted for judging was the ingenuity of members in obtaining silhouettes, and the fact that no two members used the same technique. A noted improvement in mounting prints for display was also evident.

The March meeting of the club was held in the C.W.A. rooms on the 11th at 7.30 p.m.

The set subject, "Men at Work," was then judged. Results were: A Grade: 1, A. A. Atkins. B Grade: 1, A. E. Ayres; 2, P. W. Holden; 3, R. Sollaye.

The club adopted a suggestion by Mr. Atkins that each member in turn submit a collection of six prints to the club to be forwarded to country members unable to attend club meetings. Mr. Atkins accompanied his suggestion with six prints to start the ball rolling; two members stated they would hold prints in readiness for the following two months, by which time a workable roster should be in operation.

Owing to problems of transport, the picnic to Reedy Creek had to be abandoned, much to the regret of all members.

On that sad note, the main event of the evening began, the filming of adult education films, which was open to the public, 25 people attending.

The club hopes to increase its membership by regular monthly showings of films open to the public and exhibiting prints at the same meeting. Any suggestions from camera clubs and information on how to boost membership would be gladly received by the secretary. P.W.H.

**Whither and Whence, C. S. Christian.**—Third (Equal), Class A, Set Subject for August, 1951. Exp. 1/25 sec., f/8, Super-XX, orange filter, reflex.

**By Wyndham Marsh, C. S. Christian.**—Second (Equal), Class A, Set Subject for April. Exp. 1/100 sec., f/11, Super-XX, K2 filter, reflex.

**There's a Wind on the Heath, C. V. Jackson.**—First (Equal), Class A, Open for November, 1951. Exp. 1/100 sec., f/8, yellow filter, reflex.

**At the Turn o' the Road, E. R. Cornish.**—Second (Equal), Class B, Open for March, 1951. Exp. 1/50 sec., f/11, Super-XX, folding camera.

**Lakeside, F. P. Hion.**—Third (Equal), Class A, Set Subject for April. Exp. 1/25 sec., f/16, Super-XX, K2 filter, folding camera.

**You Yangs, Victoria, E. Rotherham.**—Second (Equal), Class A, Set Subject for April. Exp. 1/50 sec., f/16, Super-XX, deep yellow filter, reflex.

**Approaching Storm, H. Cleveland.**—First (Equal), Class A, Set Subject for April. Exp. 1/50 sec., f/8, Super-XX, medium yellow filter, reflex.

**Hillside Wheatfield, J. D. Johnstone.**—First (Equal), Class B, Open for April, 1950. Exp. 1/25 sec., f/8, Super-XX, orange filter, Six-20 Folding Kodak.

## ADELAIDE CAMERA CLUB

The Adelaide Camera Club's all-day outing, planned for the 9th February at Sellick's Beach, was spoiled by wet weather, and a further outing has been scheduled for this popular spot.

The mid-monthly meeting on the 18th February was one for the colour enthusiast, and in addition to the talk given on "Colour Composition" by artist Mr. Ivor Francis, a colour slide competition was held. There was a good line-up of entries, and Merit Awards were awarded to: Messrs. Jack Tomlinson (3), Jack Windell (2), Colin West (1), L. Vinal (1), and J. Cronin (1).

Members were asked to assist in the hanging of the International Salon at the Centennial Hall, Wayville, on Saturday, 1st March. It was an all-day task and enough helpers turned out to make the work go smoothly. In addition to hanging the Salon, prints for the Royal Adelaide Exhibition were hung in another hall in the grounds on the same day.



The judges of the Adelaide Camera Club's Fourth International Salon: (From left) Keith Phillips, A.R.P.S., Arthur W. Dickinson, F.R.P.S., and Ainslie Roberts, A.R.P.S., A.P.S.A., have a closer look at a print during the selection of 200 prints from the 800 submitted. Holding print is club member George Dickson.

Monday, 3rd March, saw the monthly general meeting and print competition. Mr. Ainslie Roberts, one of the Salon judges, was the sole critic for the evening, and members benefitted greatly from his helpful and constructive 'words of wisdom.' Fifty-five members and friends were present, and Merit Awards were awarded to: Messrs. George Zeising for "Home on the Range," and D. E. Robertson for "Safe Anchorage" in A Grade, and in B Grade Mr. D. G. Dansie was the only award winner.

The club's Fourth International Salon, held in the Centennial Hall, Wayville, in conjunction with the Chamber of Manufacturers' Royal Adelaide Exhibition, was opened on Friday, 7th March, at 8 p.m., when the Premier, Mr. Tom Playford, declared the Exhibition open. A record number of people viewed the photographs: it is estimated that eight hundred visitors went through the fluorescent-lighted gallery. K.T.C.

### BRISBANE CAMERA CLUB

The last meeting in the old clubrooms at Roma Street took the form of a lecture on Composition by Mr. C. M. B. Van Homrigh, who is President of the Royal Queensland Art Society, and lecturer in art at the Teachers' Training College. Using an epidiascope, Mr. Van Homrigh showed a number of colour prints made by both early and modern painters. He drew attention to the manner in which the masters had composed their pictures, and compared painting with photography.

On Monday, 3rd March, members assembled at the new clubrooms in the Institution of Engineers Building, 183 Wickham Street, Valley. A print criticism was given by the judges. Results of the monthly competition were:

Print of the Month—J. Swengley.

A Grade (Open)—1, V. Hanson; 2, G. Searle; 3, H. Clements.

A Grade (Set)—1, H. Clements; 2, T. Scruse; 3, H. Clements, J. Schrauwen (equal).

B Grade (Open)—1, J. Swengley, A. J. Lowe (equal); 2, K. Kemp.

B Grade (Set)—1, J. Swengley; 2, W. Hughes; 3, G. Londy. G.G.-T.

### THE MELBOURNE CAMERA CLUB

During recent months well-organised plans have been gradually put into effect so that members could enjoy the opportunity of seeing some of the more outstanding work of famous photographers. To date several of these have been one-man-shows by J. B. Eaton and Dr. Julian Smith, these being shown once a month. On the other hand sectionalised groups have been formed within the club for the benefit of those members interested in Pictorial, Colour, and Nature work, as well as an instructional group for beginners.

On 21st February, the club gave a complimentary dinner to Alan Gray at the Wentworth Hotel. This proved an extremely successful function.

Over the Labour Day week-end the club held an outing to Yarram, about 150 miles from Melbourne, where members had a most enjoyable time. Members of the Sale Camera Club travelled down from Sale to act as hosts for the occasion. L.W.H.

### PRESTON PHOTOGRAPHIC SOCIETY

Archer Roberts, prominent pictorial worker, spoke at the meeting on 11th February on the subject "Print Finishing." Mr. Roberts dealt with local reduction methods, and oil reinforcement. It was most instructive for members to be able to view the actual processes being carried out, and many were surprised to see the final high quality print emerge from the horrible smears of oil colour first applied to the print.

Members were privileged on Monday, 25th February, to view a collection of Kodachrome transparencies shown by Mr. John Loxton, well-known water-colourist. The transparencies included Australian and overseas scenes taken by Mr. Loxton during a painting tour of Europe and the British Isles. The artist's outlook and ability to see a colour picture were well in evidence, and the excellent quality of the colour slides quickly disproved Mr. Loxton's modest claims that he is not a photographer.

Other well-known figures in the photographic and art worlds are to speak to members at future meetings. Full particulars are available from the Hon. Secretary, Mr. M. M. Baker, 14 Haig Street, West Heidelberg. E.H.B.

### KODAK CAMERA CLUB, MELBOURNE

Formed but a few months ago, the Kodak Camera Club is growing rapidly. Its purpose is to unite in one body any enthusiastic photographers on the staff of the Kodak organisation in the Melbourne area.

At the inaugural meeting the following office-bearers and committee were elected: President, Jan Kroef; Secretary, B. Stewart; Treasurer, F. Waghorn; Committee, F. Atkins, D. Stainsby, J. Garrett, J. Seagrave, C. Eacey, B. Spence, R. Duffy.

The first full meeting was held on Wednesday, 13th February, when a panel of three, Messrs. Kroef, Atkins and Stewart, discussed "The Camera—What it is and what it will do." At this meeting it was resolved to hold two meetings monthly—on the second and fourth Wednesday in each month, the first meeting to present a lecture or demonstration, the second for a print criticism and general discussion evening.

Outings at which friends and relatives will be welcome are to be arranged when desired by members.

Enquiries are welcomed by the Hon. Secretary, Bruce G. Stewart, of Abbotsford staff. B.G.S.

### BALLARAT CAMERA CLUB

The Ballarat Camera Club has had an exceptionally interesting month. One Wednesday evening saw members searching the town for appropriate "Night Shots." On other nights animated discussions were held in the clubrooms; one such meeting covered the merits and de-merits of 24 x 36mm. photography. This proved very illuminating to all present.

On the evening of Saturday 9th, at the invitation of Mr. and Mrs. McConnell, members visited their home and were entertained for several hours by Mr. H. Henderson, of the Melbourne C.C., with the screening of a series of Kodachrome slides made on his trip around Australia. The colours were very true to life, and several members who are keen on the hand-colouring of prints, felt they'd like to have access to some of the slides when colouring landscape prints.

The business meeting of the month was held on Wednesday 27th, and regret was expressed at the loss of Mr. J. Malone owing to his being transferred from Ballarat. He was an early member of the club and gave years of faithful service in the role of Club Secretary.

It was decided to hold a club outing on the Sunday following the business meeting as usual; the morning to be devoted to photographing begonias in the hot-houses at Ballarat Botanic Gardens, and the afternoon to cover a visit to the old-world township of Clunes.

The competition, "Outdoors at Night," was won by Mr. McConnell, whilst the Open subject was won by Mr. Howman.

The evening was rounded off with the showing of a selection of Kodachrome slides made by Mr. McConnell on a recent trip to Adelaide. M.S.

### THE AUSTRALIAN PORTFOLIO PHOTOGRAPHIC SOCIETY

During the last two months this Society's membership has grown to fifty-one active members, who are scattered throughout the Commonwealth in all States except the Northern Territory. An added stimulus to our growing membership has been the formation of a Colour Circle, which has fifteen keen workers. Slides are now being circulated for criticism, and early folios have shown a high standard of work.

Black-and-white enthusiasts are catered for with five Circles which are very active. At the moment

the Anglo-Australian Exchange Folio is circulating amongst members, who have remarked on the high quality of work attained by our English contemporaries.

Circle Two Secretary, S. Cowell, has donated a two guinea trophy for the member who submits the best print during 1952, while Circle Two members have now the added interest of competing in a Set Subject Folio.

Queensland members (Circle Three) now have keen photographer Sid Balma, of Innisfail, as their Circle Secretary. Sid had the pleasure of having three out of four of his colour slides accepted at the recent Adelaide International Colour Slide Exhibition.

Membership enquiries should be addressed to the General Secretary, 18 Wellington Road, Maylands, South Australia. D.H.F.

### PHOTOGRAPHIC SOCIETY OF VICTORIA

At the Radio School Theatre on February 15th, Mr. E. A. Teasdale, of Kodak (A/asia) Pty. Ltd., gave a most lucid account of the theoretical basis for the preparation of photographic emulsions.

Starting with the precipitation of silver bromide, he went on to explain the nature of the sensitivity centres and the formation of the latent image. After a brief discussion of development, those present were initiated into the mysteries of the various stages of commercial emulsion manufacture, including precipitation, shredding, and washing, ripening, sensitising and coating. They also learned something of the many variables that must be controlled if a uniform product is to be made, and were told how sensitive are the properties of emulsion to minute traces of impurities which cannot be detected by the ordinary methods of chemical analysis. Knowing something of the extraordinary skill and experience required to make a reliable photographic sensitive material, members must now have rather more respect for their next rolls of Kodak film.

At the club room, 109 Flinders Lane, on March 6th, Mr. Ross Boardman, a past president of the Society, delivered a most interesting address on portraiture, with demonstrations of lighting and posing. He began by discussing the mere mechanics of portrait photography with information about developers and processes. He then went on to talk about various types of lighting and the disposition of the lights to suit the particular characteristics of the sitter. Special emphasis was laid upon faults to be avoided. The art of posing the sitter and the points to be watched in order to ensure ease and naturalness were the subject for further discussion. Finally, Miss McMaster, who had kindly come to assist Mr. Boardman, posed in the spotlight's glare, so that members equipped with cameras could endeavour to put into practice some of the principles laid down by Mr. Boardman.

For the ensuing months a good programme of lectures, demonstrations and outings has been planned. In addition, the society has arranged to improve its service to the less experienced members by a special course of instruction in classes to be held on the second and fourth Thursdays in each month. These commenced on March 13th with an enrolment of 24 members, and will be continued until further notice.

A further activity for the benefit of a section of the members is the establishment of a circulating portfolio for country members. By a special amendment of its constitution the society has extended the grade of associate to include persons resident at such a distance that they are unable regularly to attend meetings. These are admitted at half subscription, and for their benefit special portfolios of the society's prints will be circulated from time to time. There is already a considerable enrolment of such members, and the first portfolio is now circulating in distant parts of the State. Associate members are, of course, free to attend and

take part in any meetings, should they be in Melbourne, and are eligible to enter for the society's competitions.

The society desires to extend hearty congratulations to members John Fried and Margaret Dickson upon their success in gaining several acceptances at the 17th Kodak International Salon, Rochester, N.Y. E.R.C.

### NEWCASTLE PHOTOGRAPHIC SOCIETY

Production of a successful montage in a crowded demonstration darkroom was the achievement of Mr. Cliff Noble at the meeting of Newcastle Photographic Society on February 19.

Mr. Noble, vice-president of the Camera Club of Sydney, gave his demonstration after a talk on montage. He appealed to members to use more imagination in their work. The possibilities of abstract work were not sufficiently appreciated amongst capable photographers, he said.

Mr. Noble supported his appeal with samples of his own abstract and montage work.

Mr. Peter Ward, of Newcastle, the speaker at the March 10 meeting, detailed the production of wash-off relief colour prints. He described the process stage-by-stage through the production of matched negatives, from a 24 x 36mm. Kodachrome to the making of the matrices and finally the colour print.

Mr. Ward produced several first-class 8 x 10 colour prints.

Society competitions resulted:

Portrait (for trophies donated by Mr. Geoff Tyndall)—"A" Grade: 1, F. Tully; 2, W. McClung; 3, R. Manuel. "B" Grade: 1, E. J. Newell; 2, J. Murphy; 3, J. Wren.

March Open—"A" Grade: 1, J. Brown; 2, R. Manuel; 3, R. Winn. "B" Grade: 1, E. J. Newell; 2, N. Everett; 3, A. Webster.

Point-score leaders: "A" Grade—J. Brown, 11; W. H. McClung, 11; R. Manuel, 7; R. Gain, 7; M. McNaughton, 7; F. Tully, 5. "B" Grade—E. Newell, 10; E. Norris, 8; J. Wren, 5; W. J. Murphy, 4; N. Everett, 4. W.H.McC.

### BOYNE VALLEY CAMERA CLUB

At the meeting held on February 18th, M. Donohoe was elected treasurer, and a vote of thanks was given to his predecessor, B. Reinke, who has entered the Services.

Competition results were: Open in Oils or Water Colours: S. G. Burrows. Australian Scenery: 1, O. Miller; 2, S. G. Burrows; 3, J. Ball. Seascape or Marine: 1, S. G. Burrows; 2, O. Miller.

The newly arrived 24" x 34" enlarger has caused much excitement and should add greatly to the scope of the Club's activities. S.G.B.

### LEETON CAMERA CLUB

Now on the eve of its third year, the Leeton Camera Club is very active and rapidly thriving. Membership has now reached the number of seventeen, all of which are very enthusiastic members; two have sent entries into the A.P.-R. contests, each with quite successful results.

During the last year the club conducted monthly competitions, having as its subjects the same titles set down for A.P.-R. contests. Over the year the monthly competitions were arranged on a point score basis, the winner for 1951 being K. R. Plitz. Also the club has now decided to hold a competition for "Print of the Year," this being restricted to prints which have gained a first, second or third place in any of the monthly competitions so far conducted. For this trophy it is anticipated that Mr. Keast Burke will judge the final competition. K.R.P.

# The 'Last Page'

An interesting reference to *The A.P.-R.* appeared in *Toronto Telegram* for Feb. 5th, 1952. It is to be found in a commendatory write-up on the current activities of well-known Canadian colour photographer, Sam Vogan. It appears that S.V. gained for his club (Toronto Branch, Colour Photographic Association) the "Grande Medaglione" of the Italian Olympic Committee for the best series of five transparencies of sporting subjects. The article went on to refer to Sam Vogan's many reproductions in, and contributions to, photographic magazines all over the world. As far as *The A.P.-R.* is concerned, reference was made to our reprinting, at length, his *Dittoletter* (in September, 1951).

The R.A.O.U. Jubilee Exhibition was shown in Adelaide during March. The next showing will be in Perth commencing approx. May 12th.

Readers will recollect that a loan collection of *A.P.-R.* prizewinning prints was recently forwarded to the *First International Salon of Photographic Art of Blumenau* (Santa Catarina, Brazil). The collection met with a very favourable response from the judges, the following acceptances having been gained: Keast Burke ("The Sextant"), C. S. Christian ("Life-Lines"), H. Cleveland ("Indian Sailor"), A. G. Gray ("Harvest"), F. P. Hion ("Haunted Hills"), S. Lowry ("Rising Seas"), L. A. Lyons ("Shimmering Sea"), Ainslie Roberts ("South Sea Trader"), E. Robertson ("Checkmate"), Mavis Wheatstone ("Pastures Hazy Gold"), the late Walter S. Wood ("Look Sister"). In view of the fact that only 157 prints were exhibited out of a total of 783 submitted, the above result must be regarded as really outstanding. The salon will be held again next year.

"Talking of camera clubs, we read the news in the P.S.A. Camera Club Bulletin that California Camera Club and Oakland Camera Club award life memberships to any of their members who receive a Fellowship in P.S.A. or R.P.S. during the time they are members of those clubs! Atta boy! What a glorious idea for Indian camera clubs to follow. Are we selfish?" (*Viewfinder*, publication of the Mysore Photographic Society, February, 1952.)

*A.P.-R.* workers did exceedingly well in a recent *Argus* contest conducted by F. Keith Manzie's "Take a Picture" column. First award (£6/6/-) went to Murray Sheppard, second to Arthur Robinson, and third to G. F. Horne. In the highly commended list were noted the names of J. Fried and W. F. Stringer.

G. McCalman reports a most successful result as far as the quantity and quality of the entries for the Muswellbrook 1952 Photographic Exhibition were concerned. Nearly 120 prints were submitted by 27 competitors—almost a 50 per cent. increase on the last occasion (1950). A table of the principal awards will be found in this issue.

Towards the end of February, an *A.P.-R.* loan collection of prizewinning prints was made available to the Randwick (Sydney) Tramway Workshops Photographic Society's First Photographic Exhibition. Hon. Sec. A. McCagley reported that the exhibition was an unqualified success.

From the Hon. Secretary, Wollongong Camera Club, comes a correction in respect of the statistics published in the report of the Fourth Adelaide International Salon in our last issue. W. C. C. challenges the statement that "previously the largest number of overseas countries sending photographs to any Australian Salon was 15; actually 25 countries were represented at the Tenth Victorian International.

Warialda P. and A. Assn. announces that on the current occasion for the first time there is to be an Open Class, Amateur Photography Section (Section 10), at the Warialda Show. The classes are No. 27, Child Study; No. 28, Action; No. 29, Landscape; and No. 30, Coloured Print, any process. Camera work must have been done by the exhibitor but trade prints are admissible. Entries close April 24th. Entry forms and full details from Secretary, Mr. Gordon Nicholson, Hope Street, Warialda.

It looks as though Wollongong Camera Club will have a very fortunate addition to its ranks in the shape of enthusiast D. A. Read, who has recently been transferred from Coonabarabran to the new State School at East Corrimal. He tells us that he is looking forward to making many new contacts in the pictorial world as well as receiving a new lease of photographic life in his new environment.

Harold Bradley writes:

"The Kerry number of *The A.P.-R.* arrived safely, for which many thanks. I found it all very interesting, for it revived many old memories. I remember making all those big enlargements which were such a feature of the Kerry display. The reference to the late Dunmore Lang also took me back most vividly, to those early days. A complete list of all the pictures I made for him would be very interesting. The range of his subjects was like Dick Swiveller's knowledge of London, 'extensive and peculiar,' ranging from the old stone house in Jamieson Street where he was born, to the site of Fisher's Ghost and to what he called 'a philosophical picture' of a few ducks!

But apart from Kerry & Co. the review was most stimulating. What a contrast to the old days! One wonders what next... always something new."

V. Curnow spoke to the Wollongong Camera Club on February 25th.

It was good to learn that duplicates are being prepared (at Rochester) from outstanding slides in the 24 x 36mm. colour section of the recent 17th Kodak International Salon of Photography.

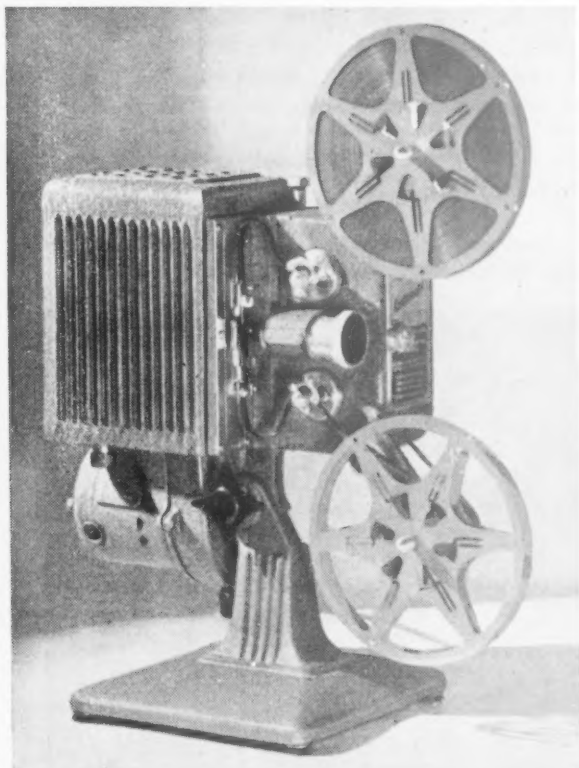
## N.S.W. FAMILY WELFARE BUREAU AMATEUR PHOTOGRAPHERS' QUEST

Entry forms for the above are now available from the N.S.W. Family Welfare Bureau, 58 Martin Place, Sydney. The general idea is that amateurs submit photographs for the best child study (children up to 3), submitting an entry fee of 2/6 for each entry. Prize for the winning photographer will be a fortnight's vacation at Hayman Island, while a complete outfit of clothing goes to the baby or child used as model. Entries close May 9th. Judging panel will include the President of the Institute of Photographic Illustrators, Acting Director of the National Art Gallery, and the Art Director of the Sydney Technical College.



---

*To show your movies at their brilliant best . . .*



## KODASCOPE EIGHT-46 PROJECTOR

... the top-rank home movie projector that really makes the most of your treasured movies. It's compact and sturdy . . . supreme in optical, mechanical and electrical precision . . . designed to give, simply and surely, the utmost in screen brilliance.

### *Check these popular features:*

Fast Kodak f/1.6 Projection lens; unique 3-bladed rotary shutter; 200-watt lamp; interchangeable internal resistances for 100- and 250-volt mains; controls conveniently grouped; simple, quick threading; helical movement focus; belt-change rewind; 200-ft. capacity; crackle enamel and chrome finish. Supplied with splicing outfit, cleaning brush, oil, spare belt and reel, instruction book.

Special carrying case for Kodascope Eight-46 projector available separately.

PRICES: Projector, £46/13/6  
Case, £6/10/6

*See this popular 8mm. movie Equipment  
at your nearest Kodak Store*

---



# FLEXARET Model II<sub>B</sub>

The reflex with "expert" capabilities — will get the pictures you want easily and quickly, without doubts and without guesswork.

1. First choice in the miniature reflex field ... popular choice amongst advanced workers. That speaks for itself.
2. Sharp-cutting Meopta Mirar 80mm. f/3.5 coated lens for clear definition and fine tonal separation.
3. Synchro. Prontor-S shutter with built-in flash contacts — eight speeds from 1 sec. to 1/300 sec., with provision for B. T. and delayed-action exposures.
4. Magnifying lens ensures critical focusing — from 3½ ft. to infinity.
5. Direct-vision viewfinder set inside adjustable hood.
6. Strong light-weight alloy body; black leatherette and chromium finish.
7. With strong leather always-ready carrying case for comfort and protection.

Price:

**£42'15/-**

*From Kodak Dealers Everywhere*



*Loads with Kodak V120 film for 12 pictures, 2¼ x 2¼ ins.*

## Learn How to Print Your Own Kodak Films

Watch the Kodak experts give free demonstrations in the Kodak Pavilion at the 1952 Royal Easter Show (Sydney), and you will learn 'all there is to know,' quickly and simply. You can even buy all the necessary equipment on the spot—and then go home and print your own show-time negatives. Kodak Film is also available at the Kodak Pavilion.

While you are there, be sure to see the exciting Kodak exhibits—large Kodak Colour Prints, Kodak Photo Instructional Boards, Flash Photography data and the newest Kodak cameras and equipment.

**Open for 10 days and 8 nights  
April 4th—15th**

*Tells all the facts . . .*

## DICTIONARY OF PHOTOGRAPHY

You can be your own authority on everything photographic when you have this concise yet detailed volume in your library. This is its 17th edition—that proves its value and popularity as a complete standard reference for all practising photographers, amateur or professional. Alphabetically compiled, it requires but a few seconds to find the information you want. Related subjects are linked with numerous cross references. Includes up-to-date formulae on all processes.

Ask to see it for yourself.

Price: **£1/15/6**

*From Kodak Dealers Everywhere*

## 35mm. NEGATIVE ALBUM

- Quicker reference
- Easier handling
- Safer storage
- Bigger, files 432 negatives

Here is a neat, compact and efficient negative file for every 35mm. enthusiast. Its large tabulated index permits quicker reference; its book style makes for easier handling; negatives filed in strips of six means safer storage; will hold 432 24 x 36mm. negatives. Has a stiff frieze board cover with push-button clasp and plastic opening flap.

**Leica Negative Album**

Price: **£1/1/-**

*From Kodak Dealers Everywhere*

## Good News!

## KODAK SUPER-XX FILM PACKS

Now Available

With a film pack or two on hand you are always ready for that rush picture—no worries of loading holders or magazines. Carry a film pack on every outing—you never know when you will need it. Get yours now while stocks last.

SIZE	EXP.	No.	PRICE
2½ x 3½	12	XX520	22 9
3½ x 4½	12	XX518	30 7
4 x 5	12	XX523	34 4
9 x 12cm.	12	XX541	28 3

*From Kodak Dealers Everywhere*

# SALE OF USED APPARATUS AND LENSES

## KODAK STORE, 379 George Street, Sydney CAMERAS

- 302—Ensign Commando, Ensar f/3.5 lens, 8-speed Epsilon shutter, coupled rangefinder .. £35
- 313—Foca, Mod. IV, 24 x 36mm., Oplar f/2.8 coated lens, slow speeds, always-ready case .. £73
- 320—Kodak Medalist II, Ektar f/3.5 coated lens, Kodak Supermatic shutter, coupled rangefinder, filter, hood, always-ready case .. £123
- 326—Leica, Mod. III, Summar f/2 lens, slow speeds, coupled rangefinder, synchro. for National flash gun .. £50
- 330—Voigtlander Vito II, Skopar f/3.5 lens, Compur-Rapid shutter, synchro. for electronic flash, £20
- 335—Rolleicord Twin Lens Reflex, Triotar f/4.5 lens, Compur shutter, always-ready case .. £30
- 9—Ensign Ranger, Ensar f/6.3 lens, 3-speed shutter. Price .. £9
- 13—Six-20 Kodak Duo, K.A. f/4.5 lens, Compur-Rapid shutter, always-ready case, £17/10/-
- 32—Rolleiflex, Tessar f/3.5 coated lens, Compur-Rapid shutter, always-ready case .. £75
- 61—Voigtlander Vito III, Skopar f/2 lens, Compur-Rapid shutter, coupled rangefinder, four filters, two adapters, always-ready case, £59/10/-
- 72—Ensign Selfix 820, Ross Xpres f/3.8 lens, 8-speed Epsilon shutter, three filters, one portrait lens, carrying case .. £27
- 83—Six-20 Folding Kodak, Cooke anastigmat f/4.5 lens, Compur shutter, Portra lens, filter, adapter, hood, case .. £18/10/-
- 96—Agfa Billy, Apotar f/4.5 lens, Compur-Rapid shutter .. £20

## CINE

- 119—Eumig 16mm. projector, 250-watt globe, leads, two spools, resistance, case. Self Recta screen, 30" x 40", glass-beaded, on roller, with handle. Price .. £80
- 111—8mm. outfit: Dekko 8mm. Camera, Dallmeyer f/1.9 lens, f/2.5 12½mm. lens, case, instr., Cinevox silent 8mm. projector, 500-watt globe, built-in transformer, case .. £126/10/-
- 121—Eumig 8mm. double-run camera, Solar f/1.9 lens, built-in exp. meter, always-ready case, £60
- 125—Cine-Kodak 8 Mod. 60 Camera, K.A. focusing f/1.9 lens, carrying case .. £40

## LENSES

- 4425—Dallmeyer Serrac Portrait, 10", f/4.5 .. £22
- 4429—Ross Homocentric Wide Angle, 4½", f/6.8, with flange .. £9/10/-
- 4430—Ross Resolux Enlarging, coated, 11cm., f/4, box .. £16
- 4431—Leitz Elmar Telephoto, 9cm., f/4, leather case .. £33/10/-

## SUNDRIES

- 214—Palec electric exposure meter, case, strap, £8
- 222—National flash gun, Mod. 100A, complete with gun, tube and reflector .. £65

- 223—Metraphot exposure meter for Leica, with sensitizing screen, case .. £10
- 224—Kodaslide Mod. 5 projector, 2" x 2", 250-watt globe, 5" f/3.5 projection lens, box .. £40

## KODAK STORE, 386 George Street, Sydney CAMERAS

- 4103—Leica IIIB, Summar f/2 lens, always ready case .. £95
- 4205—Leica III, Summar f/2 lens, always-ready case .. £75
- 4251—Leica IIIC, Elmar f/3.5 lens, hood, filter, always-ready case .. £110
- 4208—Agiford, f/4.5 lens, always-ready case .. £20
- 4122—Baby Super Ikonta, Tessar f/3.5 lens, always-ready case .. £35
- 4271—Semm-Kim, f/2.9 lens, always-ready case, £14
- 4182—Perfex "55," f/3.5 lens, coupled rangefinder. Price .. £22/10/-
- 4207—Kodak "35," f/3.5 lens, always-ready case, £22
- 4112—Kodak Vollenda, f/4.5 lens .. £18
- 4272—Six-20 Kodak A, f/4.5 lens, 8-speed shutter, flash synch., case .. £18
- 4200—Voigtlander Bessa, Voigtar f/4.5 lens, filter, £10
- 4269—Voigtlander Brilliant, f/6.3 lens, cable release, always-ready case .. £9/10/-
- 4283—Agiflex, f/3.5 coated lens, yellow and green filters, lens hood, cable release, always-ready case .. £45

## SUNDRIES

- 2119—Pelcomat auto-focus enlarger, 24 x 36mm., Ross 2" coated lens (with click stops), £42/10/-
- 2120—Gilkon No. 1 enlarger, 2½ x 3½, Wray Supar f/4.5 lens, complete with lamp .. £42/10/-

## KODAK STORE, 252 Collins, Street Melbourne CAMERAS

- 8918—Retina 1a, f/2.8 coated lens, Compur-Rapid shutter, always-ready case .. £29/10/-
- 8916—Balda, 24 x 36mm., Radionar f/2.9 coated lens, Compur-Rapid shutter, always-ready case. Price .. £18/10/-
- 8913—Zeiss Contaflex, 24 x 36mm., Sonnar f/2 lens, focal plane shutter, ½ sec. to 1/1250 and B, always-ready case .. £135
- 8911—Rolleicord Reflex, 2½ x 2½, Xenar f/3.5 coated lens, synchronised, lens hood, case. New condition .. £50
- 8910—Voigtlander Perkeo, 2½ x 2½, Skopar f/3.5 coated lens, Compur-Rapid shutter, always-ready case .. £22/10/-
- 8900—Zeiss Super Ikonta, 2½ x 3½, Tessar f/3.5 lens, Compur-Rapid shutter, always-ready case. Price .. £39/10/-
- 8881—Certo Dollina, 24 x 36mm., Xenon f/2 coated lens, Compur-Rapid shutter, always-ready case .. £39/10/-

- 8879—Condor, 24 x 36mm., f/2.5 coated lens, speeds 1 sec. to 1/200, always-ready case, £39/10/-
- 8876—Retina I, 24 x 36mm., Xenar f/3.5 coated lens, Compur-Rapid shutter, always-ready case. Price £25
- 8874—Agfa Isolette, 2½ x 2½, f/4.5 coated lens, Compur-Rapid shutter, always-ready case, £16/10/-
- 8839—Flexaret Reflex, 2½ x 2½, f/4.5 coated lens, speeds 1 sec. to 1/200 and B, always-ready case £25
- 8816—Retina II, 24 x 36mm., Xenon f/2 coated lens, Compur-Rapid shutter, always-ready case. Price £49/10/-
- 8814—Zeiss Contax III, Biotar f/2 lens, built-in exp. meter £85
- 8813—Leica IIIC, 24 x 36mm., Summarit f/2 lens, coupled rangefinder £65
- 8812—Semm-Kim, 24 x 36mm., Cross f/2.9 coated lens, speeds 1 sec. to 1/200 and B, delayed action, always-ready case £16

# KODAK STORE, 250 Queen Street, Brisbane CAMERAS

- 9132—Kodak 35, f/3.5 lens, case £37/10/-
- 9040—Six-20 Kodak A, f/4.5 lens, 8-speed shutter, Kodak Flashholder, self timer £23
- 1171—Kodak Reflex (twin lens), f/3.5 lens, case, £56
- 1091—Leica IIIC, Summarit f/2 lens, case. New condition £125
- 9092—Voigtlander Brilliant twin lens reflex, f/4.5 lens, visual meter, case £17
- 1116—Leica, standard 24 x 36mm., Elmar f/3.5 lens, frame finder, 13.5cm. Canon lens, case, £85
- 8608—Zeiss Ikon Super Ikonta (16 on 120), Tessar f/3.5 lens, coupled rangefinder, hood, filter, case £37
- 8595—Ensign Commando, Ensar f/3.5 lens £50
- 9169—Zeiss Ikon Nettar 516/2, Novar f/4.5 lens, £15
- 930—Voigtlander Virtus (16 on 120), Heliar f/3.5 lens, filter, case £25
- 8710—Wigin, 24 x 36mm., f/2.9 lens, Prontor shutter, case £21/15/-
- 9016—Voigtlander Vito II, Color Skopar f/3.5 lens, case £25

## CINE

- 923—Eumig 8mm. camera, Solar f/1.9 fixed focus lens, built-in exp. meter, case £62/10/-
- 946—Admira 8mm. camera, f/2.5 fixed focus lens, £38
- 1177—Emel C93 8mm. camera, three-lens turret, ½" f/1.9, 1" f/2.3, 2" f/3.5 lenses, case, £129/10/-
- 1187—Zeiss Movikon 8mm. camera, Sonnar f/2 lens, case £50

# KODAK STORE, 37 Rundle Street, Adelaide CAMERAS

- 646—Ensign Commando, Ensar f/3.5 lens, 8-speed Epsilon shutter, coupled rangefinder, double-exposure prevention, 12 or 16 exp. on 120 film. Perfect order £46/10/-

- 708—Six-20 Kodak A, Anastar f/4.5 lens, 4-speed Epsilon shutter to 1/150th sec. T. & B. Perfect order £18/10/-
- 831—1A Pocket Kodak, single lens, 8 exp. on 116 film. Good order £4/17/6
- 870—Korelle single lens reflex, Schneider Xenar f/2.8 lens, set of four extension tubes, always-ready case. Good order £52/10/-
- 887—Ensign Auto-Range, Ensar f/4.5 lens, coupled rangefinder, 8-speed Epsilon shutter, 12 or 16 exp. Excellent order £36/10/-
- 906—Retina II, 24 x 36mm., Schneider Xenon f/2 coated lens, Compur-Rapid shutter, always-ready case. Excellent condition £60
- 915—Ensign Selfix 820, Ensar f/4.5 coated lens, 8-speed Epsilon shutter, flash synch., 8 exp. or 12 exp. Perfect order £21/10/-
- 931—Retina I, 24 x 36mm., Kodak f/3.5 lens, Compur shutter, 1 sec. to 1/300th sec. and B. Good condition £22/10/-
- 938—Ensign Ranger I, Ensar f/6.3 lens, 3-speed Trikon shutter, 8 exp. 2½ x 3½ on 120 film. Perfect order £11/18/6
- 944—Six-20 Kodak Junior, f/7.7 lens, 3-speed shutter (1/25th, 1/50th, 1/100th sec. T. & B.), leather carrying case. Good order £5
- 946—Purma Special, Beck f/6.3 coated lens, 3-speed F.P. shutter to 1/450th sec., 16 exp. on 127 film, K2 filter, carrying case. Good order, £6/10/-
- 947—Six-16 Kodak Vigilant, f/6.3 lens, 3-speed No. 1 Diomatic shutter (1/25th, 1/50th, 1/100th sec. T. & B.). Good condition £6/5/-

## SUNDRIES

- 951—Lowry & Hennessy Minor flash gun. Perfect order £4/17/6

# KODAK STORE, 45 Elizabeth Street, Hobart CAMERAS

- 1038—Ensign Ranger 1, Ensar f/6.3 lens, 3-speed Trikon shutter, 8 exp. on 120 film £12
- 1054—Rex Aiglon, 2½ x 2½ reflex, f/4.5 lens, 5-speed shutter, always-ready case £10/10/-
- 1042—Ensign Auto-Range, Ensar f/3.5 lens, coupled rangefinder, 12 or 16 exp. on 120 film, always-ready case £45
- 1034—Foca, Mod. I, 24 x 36mm., Oplar f/3.5 coated lens, always-ready case £35
- 1099—Semm-Kim, 24 x 36mm., f/2.8 lens, 8-speed synchro. shutter, case £26/10/-
- 1035—Flexaret, Mod. II, Mirar f/4.5 coated lens, Prontor II shutter, always-ready case. Excellent condition £33
- 1048—Brownie Reflex, 12 exp. 1½ x 1½ on 127 film. Good order £2/17/6
- 1098—Retina I, 24 x 36mm., Xenar f/3.5 coated lens, 9-speed synchro. Compur-Rapid shutter. Perfect condition £28/10/-
- 1097—Super Ikonta 531, 16 exp. on 120 film, Novar f/3.5 lens, Compur shutter, always-ready case £35

# For correct exposures in changing light



you'll prefer the *NEW*

## **BERTRAM AMATEUR EXPOSURE METER**

*Accurate readings every  
time*

*Quick and simple to use*

*Compact — sturdily  
built*

*Strong button-hole  
chain for added  
convenience*

*No confusing  
calculations*

### **Prices:**

Meter: **£8/15/-**

Case: Price on application

At those times when the light is ever changing, you can trust the Bertram Amateur Exposure Meter for accurate, easy-to-calculate readings every time . . . you can shoot full of confidence that every exposure will be 'just right.'

### *Here's how it is used:*

1. Adjust film speed to meter scale.
2. Open safety cover, point meter at subject, and take light reading.
3. Turn rotating disc until number of light reading appears in window.
4. Read off correct exposure.

Attractive carrying case available separately.

**ASK FOR A DEMONSTRATION**

**AT YOUR NEAREST KODAK STORE**

*From Kodak Dealers Everywhere*





*Always distinguished in the best of company . . .*

## KODAK BROMESKO *Old Ivory* PAPERS

Ever notice how some particular salon prints tend to 'stand out' in comparison to their neighbours on an exhibition wall? That's because they have that 'distinguished old ivory look'—a favourite stand-by of the successful salonist and a graphic testimony of his faith in Kodak Bromesko Old Ivory Enlarging Papers.

Marketed in three surfaces: Old Ivory Smooth Lustre (J), Old Ivory Fine Grain Lustre (P), Old Ivory Eggshell (Q). Available in normal and contrast grades, double weight only.

Get distinction into your salon and A.P.-R. contest prints—make your next batch on Old Ivory paper.

3½" x 4½" (25 sheets)	5 -	8" x 10" (10 sheets)	11 5
3½" x 5½" (25 sheets)	6 10	10" x 12" (10 sheets)	17 1
4½" x 6½" (10 sheets)	4 5	12" x 15" (10 sheets)	25 7
6½" x 8½" (10 sheets)	7 10	16" x 20" (10 sheets)	45 6

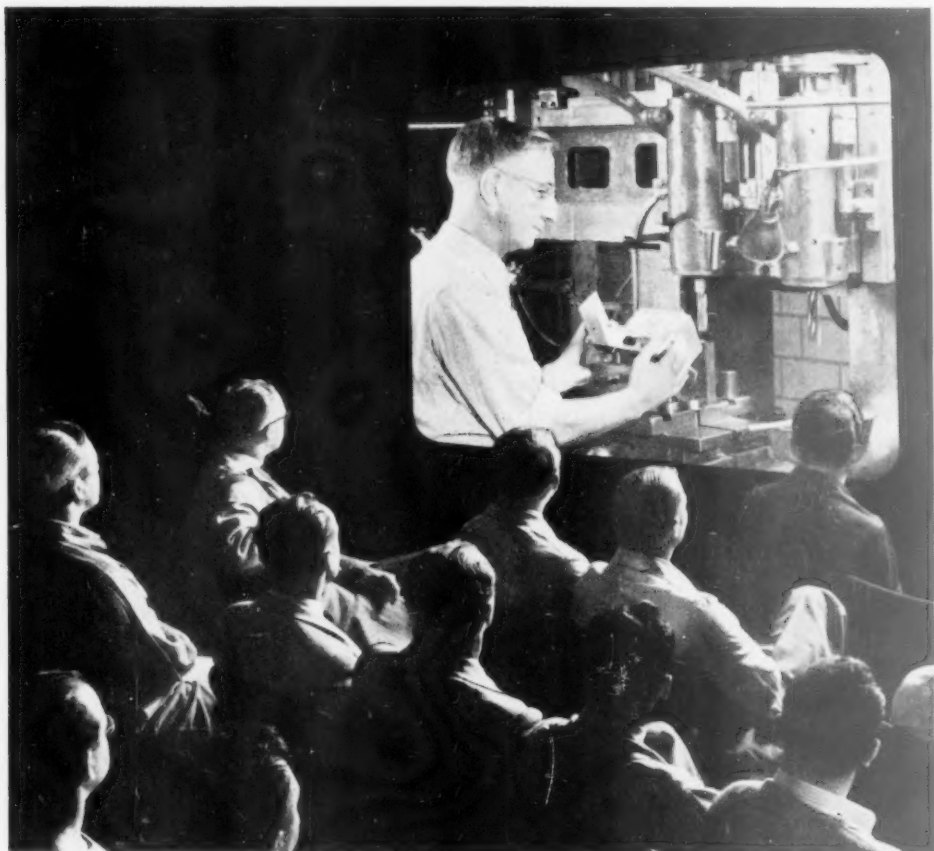
**Kodak**  
TRADE MARK

*From Kodak Dealers Everywhere*



# *Photography at work*

for the machine operator . . . and you



THROUGH MOTION PICTURES and slide films, the machine operator can be more easily trained in assembly procedures and in the best uses of machines and tools . . . skills that make better articles at lower cost for the home, office, factory and farm.

Through its many applications in industry, education, medicine, science, and government, photography is at work to benefit you and your community.

## KODAK

SERVING THE NATION  
THROUGH PHOTOGRAPHY